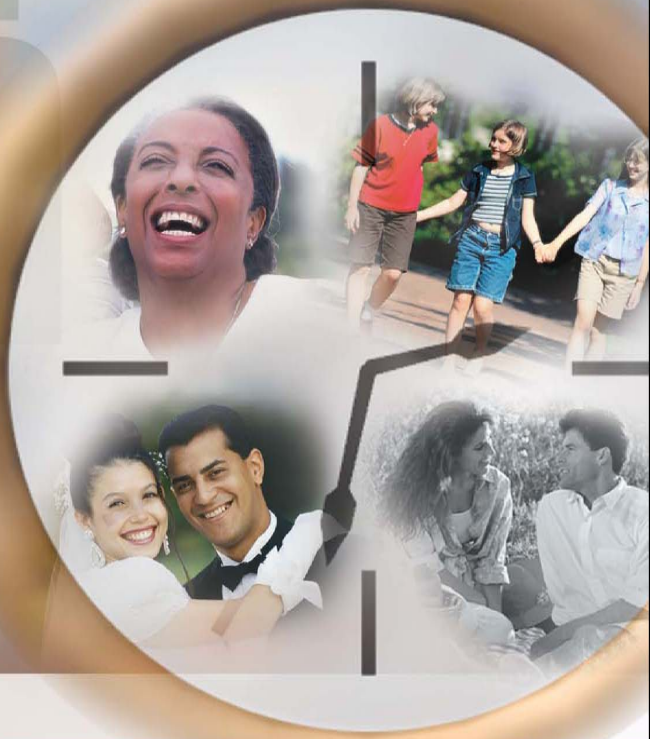
National Summit on Preconception Ca



June 21 - 22, 2005

The Atlanta Marriott Century Center
Atlanta, Georgia

CDC

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II. CDC/ATSDR PARTNERS

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- Office of Women's Health

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- Office of the Director

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Agenda At-A-Glance
National Summit on Preconception Care
June 21-23

TUESDAY, JUNE 21, 2005

8:15-9:30 AM	**Welcome and Opening Plenary** **Keynote Address: Preconception Care: Time to Act**
9:30-10:45 AM	**Plenary Session: What is it? The Evidence-base and Science Supporting Preconception Care**
10:45-11:00 AM	**Break**
11:00 – 12:00 PM	**Workshop breakout sessions A: Mini-plenary** **A1 - Genomics: The Implications for Preconception Care** **A2 – Putting it All Together in Policy and Finance: The case of Illinois**
12:00 – 2:00 PM	**Luncheon**
2:00 – 2:15 PM	**Break**
2:15 – 3:45 PM	**Workshop breakout sessions B: Practice and Programs** **B.1 –Every Woman, Every Time.** **B.2 - Community-based approaches to Preconception Care.** **B3 –Provider Education: What we know and what we need to do.** **B.4 - Tools You Can Use.** **B.5*:* The Role of Infectious Disease Prevention in Preconception Care**
3:45 – 4:00 PM	**Break**
4:00 – 5:30 PM	**Workshop breakout session C: Data and Strategies** **C.1 - Key Strategies for High-risk Women.** **C.2 - Data for Change: Action, Policy, and Practice.** **C.3 - Using Surveys to Assess Knowledge, Attitudes, and Beliefs.** **C. 4 - Reaching and Influencing Specific Populations.**
5:30-7:00 PM	**Reception with exhibits**
7:30-9:30 PM	**Special Session** **All Over the Map: Strategies from around the globe.**

WEDNESDAY JUNE 22, 2005

8:00-9:30 AM	**Workshop breakout session D: Policy and Finance** **D.1 – Medicaid Waivers for Family Planning, Preconception, and Interconception Care.** **D.2 - Disparities in Preconception Health Care.** **D.3 - Where are the Men in Women's Health? Relevance to preconception care.** **D.4 – P romising Clinical Practice Strategies.**
9:30 – 10:00 AM	**Break**
10:00 – 11:00 AM	**Plenary Session: How to pay for it? Financing Preconception Care**
11:00 – 12:30 PM	**Closing Plenary Session: Where do we go from here? Implications for Practice ("Nightline" style panel)**

Expanded Summit Agenda and Abstracts
National Summit on Preconception Care
June 21-23

TUESDAY, JUNE 21, 2005

8:15-9:30 AM **Welcome and Opening Plenary**
Moderator: José Cordero, MD, MPH
Assistant Surgeon General,
Director, National Center on Birth Defects and Developmental Disabilities (NCBDDD), Centers for Disease Control and Prevention (CDC)
Donna F. Stroup, Ph.D.
Director, Coordinating Center for Health Promotion, CDC
Winston Price, MD,
President, National Medical Association (NMA)
Douglas Laube, MD
President-Elect, American College of Obstetricians and Gynecologists (ACOG)

Keynote Address: Preconception Care: Time to Act
Jennifer Howse, Ph.D.
President, March of Dimes

9:30-10:30 AM **Plenary Session: What is it? The Evidence-base and Science Supporting Preconception Care**
Moderator: Hani Atrash, MD, MPH
Associate Director for Program Development, NCBDDD, CDC
Merry-K. Moos, RN, FNP, MPH, FAAN
Professor, Maternal Fetal Medicine Division
Department of Obstetrics and Gynecology
University of North Carolina
Lorraine V. Klerman, DrPH
Professor and Director, Institute for Children, Youth and Family Policy
The Heller School for Social Policy and Management

10:30-10:45AM **Personal consumer testimonials (live and/or video)**

10:45-11:00 AM **Break**

11:00 – 12:00 PM **Workshop breakout sessions A: Mini-plenary**

A1 - Genomics: The Implications for Preconception Care
Moderator: Muin Khoury
The Role of Genetic Counseling in Preconception Care **(Jennifer Hoskovec)**
Preventing Prematurity: Genomics and Preconception Care **(Siobhan Dolan)**

Maternal Nutrition, Epigenetics and Offpsring Health **(C S Yajnik)**

A2 – Putting it All Together in Policy and Finance: The case of Illinois
Moderator: Kay Johnson
Anne Marie Murphy, Ph.D. - Illinois Medicaid Director &
Stephen E. Saunders, M.D., M.P.H. – Associate Director

12:00 – 2:00 PM **Luncheon**
Moderator: José Cordero, MD, MPH
Assistant Surgeon General,
Director, NCBDDD
Julie Gerberding, MD, MPH,
Director, CDC ***(invited)***
Surgeon General Vice Admiral Richard H. Carmona, MD, MPH, FACSOR ***(invited)***
Joy Phumaphi,
Assistant Director-General, World Health Organization

2:00 – 2:15 PM **Break**

2:15 – 3:45 PM **Workshop breakout sessions B: Practice and Programs**
B.1 –Every Woman, Every Time.
Moderator: Lisa King

- Promoting Folic Acid Use through "Folic Acid Friendly" WIC and Family Planning Clinics **(Mary Beth Weber)**
- Every Woman, Every Time: The California Preconception Care Initiative **(Arlene Cullum)**
- Access to Women's Health Services through the Title X Family Planning Program **(Diana Cheng)**
- Enhancement and Integration of Preconception Care into MCAH/OFP Programs **(Emmett Gonzalez)**
- Oklahoma Birth Defects Registry in an Urban and a Rural Family Planning Clinic **(Vicki Feuerborn)**

B.2 - Community-based approaches to Preconception Care.
Moderator: Maureen Fitzgerald

- Broward Healthy Start Coalition **(Robin Davenport)**
- Healthy Mothers Healthy Babies Coalition (HMHB) of Wake County, Raleigh, NC **(Laura Oberkircher)**
- Toward Women Health: Cities Take Action **(Helene Kent)**
- Preconception and Interconception Care Protocols **(Yvonne Beasley)**
- A Healthy Baby is Worth the Weight **(Stephanie M. Beaudette)**

B3 –Provider Education: What we know and what we need to do. Moderator: Margaret Comerford Freda

- An Interdisciplinary Preconception Care Curriculum for four Medical Specialties **(Cynthia Chazotte)**
- Helping Internists to Help Women with Medical Illness Have the Best Pregnancy Outcomes **(Margaret Miller)**
- What Every Health Care Provider should know about the "Preconception Visit **(Margaret Malnory)**
- Health Care Provider Knowledge and Practices Regarding Folic Acid, Us, 2002–2003 **(J.L. Williams)**
- Improving Preconception Care **(Peter Bernstein)**

B.4 - Tools You Can Use.
Moderator: Cathy Melvin

- Preconception Toolkit—Making it easy for providers **(Ann E. Conway)**
- Folic Acid Education for Middle Schoolers and Girl Scouts **(Sue Samuels)**
- Evaluating a Preconceptional eHealth Education Program and Message Delivery Tool **(Elizabeth Fassett)**
- Preconception information for Hispanic women **(Beverly Robertson)**
- Folic Acid Every Day: An educational toolkit for public health nurses, nurse practitioners, dietitians and nutritionists**. (Ron Lutz)**

B.5*:* The Role of Infectious Disease Prevention in Preconception Care
Moderator: Marian McDonald

- Infectious Diseases and Preconception Care **(Susan A. Wang)**
- Planning for Pregnancy: What women need to know about STI prevention, detection and treatment (**Madeline Sutton**)
- Vaccine-preventable Infections and Preconception Care (**Susan Reef**)
- Pre-Conception Prevention of Chronic Hepatitis B: Bridging the Gap to Break the Cycle of Infection **(Chari Cohen)**

3:45 – 4:00 PM **Break**

4:00 – 5:30 PM **Workshop breakout session C: Data and Strategies**

C.1 - Key Strategies for High-risk Women.
Moderator: Al Brann

- Interconceptional Education and Counseling of the Healthy Start High Risk Woman **(Laura Levine)**
- African-American women at Grady Memorial Hospital (GMH). **(Anne Dunlop)**

- Interconceptional Care Counseling: A Curriculum for Health Care Educators & Providers **(Diana Sierra)**
- A Novel Comprehensive Preconception Interconception Care (CPIC) Program. **(Ashlesha Dayal)**
- Magnolia Project **(Carol Brady)**

C.2 - Data for Change: Action, Policy, and Practice. Moderator: Jennifer Skala

- The Importance of Marketing Perinatal Health to Non-Contemplators: The Cases of Folic Acid and Alcohol **(Kenneth Rosenberg)**
- Preconception Care: An Opportunity to Prevent Maternal Mortality **(Cynthia Chazotte)**
- Using the PPOR Approach to Implement Preconception Health Policies and Programs**(Amy Johnson)**
- Utilizing PPOR Results to Develop Strategic Interventions and Implement Healthy Start Interconceptional Education and Counseling Initiative **(Jennifer Opalek, Jane Bambace)**
- 51 The Fountain Project: Toward an Integrated Model for Evidence-Based Preconceptual Care **(Betty Cook)**

C.3 - Using Surveys to Assess Knowledge, Attitudes, and Beliefs. Moderator: Joe Mulinare

- Consumer knowledge **(Janis Biermann)**
- Low income women of diverse ethnic groups who receive enhanced services **(Carol Korenbrot)**
- Pregnancy planning and lifestyle behaviors among nonpregnant women of childbearing age, Southern California, 1998-2000 **(Kathleen Raleigh)**
- Predictors of Preconception Care and Birth Defects Prevention **(Amy Case)**

C. 4 - Reaching and Influencing Specific Populations. Moderator: Annette Phelps

- Folic Acid Awareness and Use By Women in California (1997-2002) **(Patti Culross or Joyce Weston)**
- DOUGLAS Preconception Plan **(Patty Baker)**
- Save Our Babies – Orange County, FL **(Lesli Ahonkhai)**
- The Florida VitaGrant Project: Promoting Pre/interconceptional Health Years **(Elizabeth Jensen)**
- Access to and Communication in Health Care for Females of Child-Bearing Age **(Rosaly Correa-de-Araujo)**

5:30-7:00 PM **Reception with exhibits**

7:30-9:30 PM **Special Session**

All Over the Map: Strategies from around the globe.
Moderator: Shahul Ebrahim

- Application of preconceptional care in Korea **(Han Jung-Yeol)**
- Pre-Pregnancy Preparation Service of the Family Planning Association of Hong Kong **(Sue Lo)**
- Preconceptional HIV screening, Guangxi, China **(J Zhuo)**
- Social marketing preconception health care: a pilot study in the People's Republic of China **(Z. Li)**
- Preconception care to fill in gaps in prenatal care: Improving maternal and child outcomes through preconceptional care in resource poor islands of the Philippines. **(Angelita F. Ago)**
- Promotion of Preconception Care: The Belgian Project (Pierre Delvoye)

WEDNESDAY JUNE 22, 2005

8:00-9:30 AM **Workshop breakout session D: Policy and Finance**

D.1 – Medicaid Waivers for Family Planning, Preconception, and Interconception Care.
Moderator – Kay Johnson
William Hollinshead, MD, Division of Family Health, Rhode Island Department of Health

D.2 - Disparities in Preconception Health Care.
Moderator: Rosaly Correa-de-Araujo

- Disparities in Preconception Health Care **(Rosaly Correa-de-Araujo)**
- Socioeconomic and racial disparities among infertility patients seeking care **(Tarun Jain)**
- Preconception prevention and treatment of infectious diseases among minority women **(Lara Weinstein)**
- Disparities in Perinatal Outcomes using PPOR: Results for the Bay Area Data Collaborative **(Ellen Stein)**

D.3 - Where are the Men in Women's Health? Relevance to preconception care.
Moderator: Melissa McDiarmid

- Healthy Dads **(Steven Schrader)**
- Improving Preconception Care for men and women exposed to reproductive hazards in the workplace **(Linda Frazier)**
- The Occupational and Environmental History: A Key Element of the Pre-Conception Visit **(Melissa A. McDiarmid)**
- Missouri Bootheel Healthy Start – "Educating a Community through Its Own Ingenuity" **(Cynthia Dean)**

D.4 – P romising Clinical Practice Strategies.
Moderator: Abby Rosenthal

- An Innovative Model for Preconception/Interconception Counseling during **(Bernstein, Peter)**
- First Page: Screening for Birth Defects and Genetic Disorders **(Kloza, Edward)**
- Current clinical practice and guidelines **(Michele Curtis)**
- Evidence-Based Interventions to Achieve Smoking Cessation in Pregnant Women **(Susan Albrecht)**
- Improving Perinatal Outcomes by Providing Preconception Care for Women with a History of Depression **(Jennifer Wilen)**

9:30 – 10:00 AM **Break**

10:00 – 11:00 AM **Plenary Session: How to pay for it? Financing Preconception Care**
Moderator: Charlie Mahan,
Professor, University of South Florida
Sara Rosenbaum, J.D., Hirsh Professor and Chair, Department of Health Policy, George Washington University
Mary Stranger, Director of Benefits – Synovus Financial Corporation

11:00 – 12:30 PM **Closing Plenary Session: Where do we go from here? Implications for Practice ("Nightline" style panel)**
Moderator: Kay Johnson

- **Al Brann, Jr.,** MD
  Professor of Pediatrics
  Emory University, School of Medicine
  Director - World Health Organization Collaborating Center in Reproductive Health (in Atlanta)
- **Magda Peck,** ScD
  Senior Advisor, CityMatCH
  Professor, University of Nebraska Medical Center
- **Michele Curtis, MD**
  American College of Obstetricians and Gynecologists
- **Margaret Comerford Freda,** EdD, RN, CHES, FAAN
  Professor, Obstetrics & Gynecology and Women's Health
  Albert Einstein College of Medicine, Montefiore Medical Center
  Editor, MCN The American Journal of Maternal Child Nursing
- **Ann Weathersby,** CNM, MSN
  Kaiser Permanente
- **Charlie Mahan,** MD
  Professor, University of South Florida
- **Maxine D. Hayes,** MD, MPH
  State Health Officer
  WA State Department of Health
- **Carol Weisman**, Ph.D
  Center of Excellence for Research on Pregnancy Outcomes, Penn State

Mini-Plenary

A1 - Genomics: The Implications for Preconception Care

The 21st century has brought with it the completion of the sequencing of the human genome. As gene discovery continues, with clear implications for understanding classic genetic diseases, genetic variation is increasingly appreciated to impart differential susceptibility to complex diseases. These complex conditions include many perinatal outcomes such as preterm birth, stillbirth, and infant health, which arise as the result of gene-environment interactions. Genomic research is allowing us to refine our understanding of many aspects of preconception care, including susceptibility to smoking, response to folic acid, and nutritional influences on growth and development. An accurate assessment of risk in the preconception period will allow personalization of clinical preventive measures as well as a strengthening of preventive public health measures.

In this session, participants will:

1) Consider the role of genetics, genomics, and epigenetics in improving birth outcomes
2) Review risk assessment and the role of genetic counseling in preconception care
3) Employ a life cycle approach to health promotion and disease prevention and consider prenatal determinants of adult health

Moderator: Muin Khoury
The Role of Genetic Counseling in Preconception Care **(Jennifer Hoskovec)**
Preventing Prematurity: Genomics and Preconception Care **(Siobhan Dolan)**
Maternal Nutrition, Epigenetics and Offpsring Health **(C S Yajnik)**

The Genetic Counselor's Role in Preconception Care – (Jennifer Hoskovec)
Current literature and practices encourage the implementation of multidisciplinary preconception care programs. Genetic counselors are allied healthcare specialists with unique training and expertise, who can enhance preconception care by identifying women and their partners who may have an increased risk to have a child with a birth defect or genetic condition. This is accomplished through the comprehensive assessment of a client's family and medical history, as well as the discussion of appropriate screening options and diagnostic tests. Genetic counselors employ skills such as contracting, active listening, and empathy to elicit clinically-relevant information as well as address the client's questions and concerns about their possible reproductive risks. Through the process of genetic counseling, the counselor assesses the client's understanding and facilitates decision-making regarding options for screening, testing, and related medical management.

Family history assessment is an invaluable tool used to evaluate the risks for specific birth defects and genetic conditions in a family. Genetic counselors encourage women to collect their medical family history information and thereby take an active role in this process. If the family history is addressed prior to pregnancy, couples have more time to obtain additional information from family members and/or pursue additional evaluation (if necessary) that may aid in a more accurate risk assessment. For example, a woman with a family history of mental retardation would benefit from a complete family history

assessment that may include recommendations for further evaluation of affected family members in order to clarify the etiology of the condition and refine genetic risks.

In regard to a client's personal medical history, genetic counselors educate women with conditions such as diabetes and epilepsy about their increased risk for birth defects. Women with pre-gestational diabetes are at an increased risk to have offspring with specific birth defects and proper compliance with diet and medication may reduce this risk

Genetic counselors educate clients about screening and diagnostic testing options available prior to and during a pregnancy. These screenings may include ethnicity based screening, maternal serum screening, ultrasound, and screening for various genetic conditions. Regarding ethnicity based screening, it is important that individuals are properly counseled about the implications of carrier testing for specific inherited conditions such as cystic fibrosis and hemoglobinopathies. Couples who know their carrier status for these conditions prior to pregnancy have the option of early prenatal diagnostic testing or, in some cases, preimplantation genetic diagnosis.

Limited awareness of and limited access to genetic counseling services are challenges that the field of genetic counseling is actively addressing through education of healthcare professionals and the general public. While the traditional model of prenatal genetic counseling focuses on women who are currently pregnant, increased awareness through these educational campaigns will demonstrate the importance of implementing preconception genetic counseling. We feel that this goal is strongly aligned with the National Summit on Preconception Care's mission to promote the development of national recommendations for preconception care.

Preventing Prematurity: Genomics and Preconception Care
Siobhan Dolan, MD, MPH

In 2002, the upward trend in preterm birth (PTB) continued, reaching 12.1%, the highest rate ever reported. Despite decades of research on this common complex disorder, accurate prediction strategies and effective interventions have remained illusive. While many risk factors and four pathways have been identified (inflammation, maternal/fetal stress, uterine distension, and thrombophilia), prevention of PTB will require a reevaluation of clinical practice, a focus on disparities, and a comprehensive research strategy utilizing genomic approaches. In the search for predictive strategies, family medical history has been identified as a genomic tool that can capture the interactions of genetic susceptibility, shared environment, and common behaviors in relation to disease risk. A framework for using family history and other genomic tools to predict risk of prematurity will be presented along with a discussion of how these tools might enhance clinical and public health interventions in the preconception period.

Maternal Nutrition, Epigenetics and Offpsring Health (C S Yajnik)

It is increasingly apparent that 'life before birth' is an important determinant of future health. Pune Maternal Nutrition Study (PMNS) was perhaps the first prospective, purpose driven 'prenatal cohort' set up to test and elaborate Barker hypothesis. We followed up over 2500 non-pregnant women in 6 villages every month and studied over 800 pregnancies in them for measurements of maternal nutrition, physical activity, circulating nutrients and metabolites in relation to fetal growth and detailed size measurements at birth. The babies have been measured every 6 mths after birth and at 6y the children and the parents were assessed for cardiovascular risk factors.

The mothers weighted 42 kg before pregnancy and had a BMI of 18.1 kg/m^2. Their babies weighed 2.7 kg, and appeared quite 'thin' with an average ponderal index of 24.1 kg/m^3. However, these 'thin' Indian babies had comparable skinfolds to those of the European babies. In other words they were 'thin' but 'fat'. Maternal macronutrient intake was not a significant predictor of the size or the 'composition' of the baby but food items rich in micronutrients i.e. green leafy vegetables, fruits and milk predicted babies' size. Maternal circulating levels of nutrients (vit C, folate etc), metabolites (glucose, triglycerides and cholesterol) also predicted babies' size and body composition. None of the mothers smoked or drank alcohol and only a few had gestational diabetes. However, there were significant relations between maternal glucose and offspring size and body composition in the normal range. Maternal physical activity also predicted offspring size.

At 6y of age these children were still small and thin by international comparison (height 1.22m, weight 16kg, BMI 13.5 kg/m^2) but in a comparative study showed higher adiposity than age and sex matched British children. Their insulin resistance (HOMA-R) was predicted by higher maternal circulating levels of folate and vit C in pregnancy and higher frequency of intake of dairy products. This rather counterintuitive relation between maternal folate status in pregnancy and offspring insulin resistance in childhood could be due to a large prevalence of vitamin B12 deficiency in these mothers. Offspring of mothers with low vit B12 status and high folate status during pregnancy were the most insulin resistant at 6y of age.

Thus, PMNS has provided new and exciting information on maternal factors before and during pregnancy which predict offspring body composition and insulin resistance in childhood. This will lead to design of interventions in mothers before and during pregnancy which could curtail the epidemic of type 2 diabetes and CV disease.

A2 – Putting it All Together in Policy and Finance: The Case of Illinois

Financing preconception care, interventions, and program models is one challenge to improving outcomes for women and infants. This session will discuss Illinois policy leaders commitment to improving the health of women and children, and how the state has focused resources on improving preconception health.

The Illinois Department of Public Aid (IDPA) recently created a new bureau for "Maternal and Child Health Promotion." Using Medicaid, the IDPA has extended pre- and inter-conception care for low-income women. The state's waiver to extend Medicaid coverage of family planning services was implemented as the *Illinois Healthy Women* initiative. This five-year demonstration project is designed to improve the health outcomes of women and their future children by expanding access to women's health care services. Illinois Healthy Women provides **preconception and interconception coverage** to women who lose their medical assistance benefits, to give continued access to essential preventive and reproductive health care services, as well as contraceptives, thereby allowing them to reduce unintended pregnancy, choose the number and spacing of their pregnancies and, when desired, to plan a healthy birth.

Illinois obtained a separate waiver (under Title XXI) to operate *Family Care*, which provides health insurance coverage to parents with income equal to or less than 90 percent of the FPL. Such extensions of family coverage provide access to interconception care for women additional low-income families.

Preconception care is a priority area for Illinois' *Title V Maternal and Child Health* (MCH) program, and four strategies are designed to improve preconceptional health. The Family Planning program is the state's primary strategy for improving preconceptional health. The second preconception care strategy is the statewide genetic counseling program through grants to public health and private specialty providers. The third preconception care program – a statewide campaign promoting the consumption of folic acid – is jointly conducted by the state Title V program and the Illinois Chapter of the March of Dimes. A fourth strategy focuses on women with perinatal depression, which can have major impact of interconception care and health. In addition, Title V supports programs that provide interconception care and education for teen parents.

In sum, Illinois is putting it all together to improve the health of women before a pregnancy occurs, before a child is conceived. The state offers promising strategies built on existing program and finance structures that could be replicated in other states.

Moderator: Kay Johnson, MPH

- Using Medicaid Waiver's to Promote Women's Health and Pre/Interconception Care - **(Anne Marie Murphy, PhD** - Administrator, Division of Medical Programs, Illinois Department of Public Aid)
- Using Title V and Other MCH Resources to Improve Pre/Interconception Care **– (Stephen E. Saunders, MD, MPH**, - Associate Director for Family Health, Division of Community Health and Prevention, Illinois Department of Human Services**)**

1. Using Medicaid Waiver's to Promote Women's Health and Pre/Interconception Care - Anne Marie Murphy, PhD, Administrator, Division of Medical Programs, Illinois Department of Public Aid

The Illinois Department of Public Aid (IDPA) is committed to improving the health of women and children. The department has recently created a new bureau for "Maternal and Child Health Promotion" dedicated to this goal. Using Medicaid, the IDPA has extended pre- and inter-conception care for low-income women.

The IDPA's long-standing request for a waiver to extend Medicaid coverage of family planning services was approved and has been implemented as the *Illinois Healthy Women* initiative. Illinois Healthy Women provides **preconception and interconception** to women who have recently lost their medical assistance benefits. Implemented on April 19, 2004, this five-year demonstration project is designed to improve the health outcomes of women and their future children by expanding access to women's health care services.

Illinois Healthy Women is a voluntary program, and women can re-enroll every 12 months as long as they are eligible. Eligibility is extended to women who would otherwise lose maternity-related coverage after 60 days postpartum, along with all women ages 19-44 who were enrolled in and lost full Medicaid benefits. Coverage will enable low-income women who are leaving IDPA's medical assistance programs to have continued access to essential preventive and reproductive health care services, as well as contraceptives, thereby allowing them to reduce unintended pregnancy, choose the number and spacing of their pregnancies and, when desired, to plan a healthy birth. Such coverage is key to improving access for preconception and interconception care to this group of women at high-risk.

Since there is no application process, outreach efforts have been targeted to those providers who have frequent contact with the eligible population. Mailings to local health and social service agencies, notices to all family planning providers, trainings for local health departments, and press releases have been used to increase awareness and knowledge of the Illinois Health Women program.

The implementation of Illinois Healthy Women is expected to increase the capacity of Illinois' Family Planning Program. Those individuals not eligible for IHW are referred to Title X, for assistance in locating low cost family planning services in their area.

Illinois also obtained a waiver under Title XXI (State Children's Health Insurance Program – SCHIP) to operate Family Care, which provides health insurance coverage to parents with income equal to or less than 90 percent of the FPL. Governor Blagojevich requested budget funds for SFY'05 to increase the eligibility threshold for Family Care from 90 to 133 percent of the federal poverty standard. Such extensions of family coverage provide access to interconception care for women additional low-income families.

2. Using Title V and Other MCH Resources to Improve Pre/Interconception Care - Stephen E. Saunders, MD, MPH, Associate Director for Family Health, Division of Community Health and Prevention, Illinois Department of Human Services

In Illinois, the Department of Human Services (IDHS) as the state health agency responsible for the administration of the MCH Services Block Grant; however, services are coordinated through several units. The IDHS allocates its resources by "Giving highest priority to those areas in Illinois having high concentrations of low-income families, medically underserved areas, and those areas with high infant mortality and teenage pregnancies . . ." Illinois' Title V program focuses on three main areas: the reduction of infant mortality; the improvement of child health, and the prevention of teen pregnancy.

Preconception care is one priority area, and four strategies are designed to improve preconceptional health. The Family Planning program is the state's primary strategy for improving preconceptional health. This program – primarily supported with Title X funding – provides comprehensive family planning services related to the avoidance, achievement, timing, and spacing of pregnancy. The second preconception care strategy is the IDPH-supported statewide genetic counseling program through grants to public health and private specialty providers.

The third preconception care program – a statewide campaign promoting the consumption of folic acid – is jointly conducted by the state Title V program and the Illinois Chapter of the March of Dimes.

A fourth strategy focuses on women with perinatal depression, which can have major impact of interconception care and health. The Title V program, working with the Department of Psychiatry in the University of Illinois at Chicago to applied for and received a "State Grant for Perinatal Depression and Related Mental Health Problems in Mothers and Their Families." Further, as of December 1, 2004, the Illinois Department of Public Aid (IDPA) began reimbursing providers for screening mothers for perinatal depression when the child is on the state's Medicaid program. The Title V agency is working with the Illinois Academy of Pediatrics to encourage use of this new resource.

In addition, Title V supports programs that provide interconception care and education for teen parents. The Teen Parent Services (TPS) program is mandated for parents under age 21 who are receiving TANF and is offered to young parents who receive Medicaid, WIC, FCM or Food Stamps. The Parents Too Soon (PTS) program helps teen parents to delay subsequent pregnancies, improve their own health, and promote the healthy

development of their children. The Responsible Parenting program assists mothers ages 13 and 18 years to delay subsequent pregnancies, effectively practice birth control, graduate from high school, develop parenting skills and cope with problems related to pregnancy and parenting.

3. Preconception and Interconception Care in the Healthy Start Program of Southern Illinois - Paula Brodie, MSHPE

The communities of Greater East St. Louis, Belleville, and Alton, Illinois, collectively comprise the project service area for Southern Illinois Healthcare Foundation's (SIHF) Healthy Start program. As well as being the most culturally diverse area in Southern Illinois, this area also has the distinction of being four of the nation's poorest communities. Women of childbearing age represent over one-quarter of the population. Once the economic backbone of the region, East St. Louis continues to experience a decaying infrastructure that has resulted in socioeconomic devastation and intractable poverty not only for East St. Louis, but its neighboring communities as well.

As part of their Healthy Start Initiative the Southern Illinois Healthcare Foundation (SIHF) has launched the *Interconceptional Care for High Risk Women* project. Providing interconceptional care for postpartum high-risk women and infants requires a comprehensive approach to system integration, provider training, community awareness, and patient education. To successfully implement an effective interconceptional care program, SIHF Healthy Start has identified four goals to be accomplished by 5/31/05. These are: 1) Increase awareness of the importance of interconceptional care; 2) Extend integrated social and medical case management to include high-risk postpartum women and their infants; 3) Increase access to services; and 4) Screen postpartum women for symptoms of depression.

SIHF Healthy Start interconception program services seek to ensure that women are healthy before they become pregnant. SIHF Healthy Start interconceptional case management activities target high-risk postpartum women and infants identified as at risk due to adverse pregnancy outcome which may include, but not limited to low birth weight, pre-term delivery, maternal medical problem, fetal loss, or neonatal death. Identification and recruitment of participants for interconceptional services includes daily hospital visits with postpartum women and referrals from health care providers, social service providers, and the local health department. Case managers assess those case management participants for social service needs, adverse health behaviors, psychological conditions including symptoms of depression, and barriers to family planning services and primary health care.

By 5/31/05 we seek to increase awareness among consumers by assuring that: 1) 94% of program participants understand the importance of folic acid prior to pregnancy for women of reproductive age; 2) 90% of Healthy Start participants demonstrate knowledge of and how to access family planning services; and 3) 95% receive education on healthy behaviors.

Extension of case management services will seek to accomplish by 5/31/05; 1) Enrollment of at least 85% of identified high-risk postpartum women into case

management services; 2) Assurance that 95% of all infants and 94% of postpartum women identified with special needs receive and complete referrals for service; 3) An 85% compliance rate among postpartum participants for postpartum/family planning visits within eights of delivery date.

To increase access to health care services by 5/31/05 we will: 1) Provide door-to-door transportation service for women and infants to health care appointments and health education activities: 2) Link 95% of infants identified as being without a medical home with a primary care provider through enrollment into Medicaid or KidCare Insurance programs; 3) Increase by 35% the number of women accessing family planning services as documented through medical office visit records.

To increase screening for depression and referral by 5/31/05 we will: 1) Screen 100% of postpartum participants for symptoms of depression; 2) 100% of individuals participating in training related to perinatal depression will increase knowledge of postpartum depression, its effect and available resources

SIHF Healthy Start interconceptional program operates in conjunction with the Illinois Department of Human Services Adverse Pregnancy Reporting System (APORS), which follows infants from birth to twenty-four months who are born prematurely or at medical risk. This links two case management programs and approaches, reducing duplication of services and creating synergies.

Evaluation and/or evidence of success: Experience to date has been met with both accomplishments and challenges. In CY 02, 311 women and infants were identified and referred for interconceptional case management services. Eighty-two percent (256 of 311) were enrolled into the case management program. 486 women received case prenatal management services and 216 women participated in prenatal education programs. Nearly 150 women participated in interconception health activities, and 164 women wee screened for symptoms of depression. Consortium activities included coordination of community education events and provider in-service training, advocacy for increased access to care, and quarterly meetings. Challenges included addressing access issues created by the exodus of providers who choose to no longer practice in the field of obstetrics due to the cost of malpractice insurance, and changes with the local health care environment resulting from the implementation of Medicaid Managed Care.

The SIHF Healthy Start evaluation will involve analysis of data from different data processes. Data will be obtained from the Illinois Department of Public Health (IDPH) on population (community) health indicators such as infant mortality, low birth weight, very low birth weight, adequacy of prenatal care, and births to teens. This and measured against project goals and compared with the State of Illinois outcomes. The second area relates to outcomes for those who receive Healthy Start services, particularly related to case management interventions, risk assessment and depression screening and referral, percentage of completed referrals, and birth outcomes. Data also will be collected on client recruitment, outreach interventions, completion rates of health education classes, knowledge associated with prenatal and interconceptional health, and participation in in-service training programs.

B: PRACTICE AND PROGRAMS

B.1 –Every Woman, Every Time.

The components of preconception care are an integral part of women's health care. Every health care encounter represents and opportunity to integrate preconception care into women's health care.

Learning objectives:

1. Focus on the requirement that successful preconception care programs must cut across disciplines, agencies, and community organizations.
2. Identify innovative approaches to providing preconception care in a variety of settings.
3. Describe adaptable preconception education efforts and outreach.

Moderator: Lisa King

- Promoting Folic Acid Use through "Folic Acid Friendly" WIC and Family Planning Clinics **(Mary Beth Weber)**
- Every Woman, Every Time: The California Preconception Care Initiative **(Arlene Cullum)**
- Access to Women's Health Services through the Title X Family Planning Program **(Diana Cheng)**
- Enhancement and Integration of Preconception Care into MCAH/OFP Programs **(Emmett Gonzalez)**
- Oklahoma Birth Defects Registry in an Urban and a Rural Family Planning Clinic **(Vicki Feuerborn)**

PROMOTING FOLIC ACID USE THROUGH "FOLIC AICD FRIENDLY" WIC and FAMILY PLANNING CLINICS ***Mary Beth Weber, MPH, Anne L. Lifflander, MD, MPH, Godfrey P. Oakley, Jr, MD, MSPM, Karen N. Bell, MPH*** Emory University, Rollins School of Public Health, Dept. of Epidemiology

Program description including target population: The Georgia Folic Acid Campaign (GFAC) sought to increase the number of reproductive age women consuming at least 400 μg of synthetic folic acid and the proportion of health care providers who promote folic acid to their patients.

Services offered or intervention approach and providers: The GFAC is a WIC and Family Planning Clinic-based initiative to increase folic acid consumption through directed provider outreach and in-office education. The program, based on pharmaceutical office detailing, sought to create "folic acid friendly" offices, where folic acid consumption would be promoted actively and folic acid materials would be prominently displayed and available to clients.

Evaluation and/or evidence of success: There was a significant increase in consumption of cold breakfast cereals (52%-59%, p=0.0187) and folic acid knowledge (29%-34%,

p=0.0293) among non-pregnant women and in the proportion of women who reported learning about folic acid from a health professional (52%-57%, p=0.0219). The proportion of women who had never heard of folic acid decreased from 18% to 11% (p<0.0001). Approximately 75% of the women read nutrition labels, but fewer than 10% looked for folic acid content on labels.

Conclusion: Promoting fully fortified breakfast cereals may be an effective way to increase folic acid use. Improving label reading skills to include checking for folic acid can be taught to encourage folic acid consumption. Intensive and ongoing folic acid promotion is still needed. In spite of improvements in cereal consumption, less than one-third of all non-pregnant women are consuming a multivitamin or a fully-fortified cold cereal, and three quarters of pregnant women were not taking a multivitamin at the time they became pregnant. This program could be easily replicated and modified for use in other health care provider offices.

EVERY WOMAN, EVERY TIME: THE CALIFORNIA PRECONCEPTION CARE INITIATIVE, ***Arlene S. Cullum, MPH***, Sutter Medical Center, Sacramento

Program description The California Preconception Care Initiative was a grant partnership between Sutter Medical Center, Sacramento and the March of Dimes, which began in 1998. Increasing access to preconception care was accomplished through two major activities: (1) conducting a meta-analysis of preconceptional care literature, serving as rationale for content, and (2) developing and distributing a marketing packet to promote adoption of preconceptional services/interventions by medical providers in California.

Services offered/intervention/providers: These two initiatives were chosen to provide clear information about the value of preconceptional interventions and to provide user-friendly materials to change practices in patient education and billing. Other key partners in the project included the American College of Obstetricians and Gynecologists, the California Academy of Family Physicians, and a university-based health policy institute. A statewide medical advisory committee was formed with representation from public, private, university-based, and governmental physicians. This committee developed the framework for a quantitative and cost-effectiveness analysis of the literature using the systemic approach of the Cochrane Collaboration (Korenbrot et al, 2002). Consensus was achieved on the content of preconception care that improved maternal or neonatal health outcomes beyond those in routine prenatal care.

A technical advisory committee was then formed to develop a promotional packet for primary care providers, entitled *California Preconception Care Initiative: Every Woman, Every Time.* Key components of the packet included the rationale for providing preconceptional care, a description of the essential elements of care, patient education handouts in multiple languages at low reading level, and methods for billing. 9,000 educational packets were distributed at statewide professional conferences and meetings and distributed to professional organization mailing lists. Currently, plans are underway to update the packet.

Evaluation and/or evidence of success: An evaluation of product effectiveness was conducted by a university-based center for health policy studies. Responses from 187 providers showed that 75% indicated the material in the packet would change advice in the practice setting somewhat or very much, 62% indicated the patient education information was very useful, 80% of providers stated they would distribute the handouts, and 72% would use the billing codes provided. Evaluation of the change in volume of preconception services on a statewide basis is being considered for further evaluation of effectiveness.

Conclusions: *Every Woman, Every Time* can serve as a model to other states for promoting preconception care to primary care providers for women. It continues to be a challenge to comprehensively fund preconception care services, have routine provision of preconception care services to reproductive age women, and to assure complete access to care across the age and health care continuum.

ACCESS TO WOMEN'S HEALTH SERVICES THROUGH THE TITLE X FAMILY PLANING PROGRAM ***Diana Cheng, M.D.***, Maryland Department of Health and Mental Hygiene, Center for Maternal and Child Health

Program: The Women Enjoying Life Longer (WELL) Project was initiated by the Maryland Department of Health and Mental Hygiene following a community needs assessment. Comprehensive preventive women's health services were added to three Title X family planning centers in Eastern Baltimore County. Funding from the Maternal and Child Health Bureau supplemented the already existent budget from Title X. Most of the 1,600 annual clients have difficult access to health care – 33% are teens, 42% are of a racial or ethnic minority, 75% are at or below the federal poverty level and 86% are uninsured.

Services: Services introduced include nutrition and physical activity counseling, adult immunizations, smoking cessation management, preconception counseling, as well as screening and referrals for substance abuse, depression, domestic violence, and chronic disease. These WELL services were integrated with HIV counseling and testing, STD testing, Pap smears and colposcopy - which were already part of the family planning program. All services are provided by health educators and counselors, nurse practitioners and ob/gyn physicians. Staff was trained about women's health topics during monthly meetings. Educational client materials created specifically for WELL include brochures, screening cards, patient history cards, health resource book, promotional items, health "risk" wheel, and posters designed in collaboration with the Maryland Science Center.

Evaluation: Program activities were evaluated, focusing on the implementation and early impact of services, and patient and staff perceptions. Surveyed patients and staff responded positively to new services offered and felt they should be continued. Clients identified many services as ones they would not have otherwise received without WELL. Knowledge of women's health, evaluated by a patient questionnaire, improved after the introduction of WELL. Patient volume has increased 37% from 2001 to 2003.

Sustainability: Plans are being made to expand the WELL program to other areas of the state. Current family planning staff can accommodate most of WELL services, however the addition of a health educator eases the clinical load in the early stages of the program. Development of a relationship for primary care referrals in the community is important so that women can obtain services that cannot be accessed in the family planning center.

Conclusion*:* Although women of "reproductive" age primarily seek healthcare for pregnancy or family planning, their need for comprehensive services that promote wellness preconceptionally, inter-conceptionally, and beyond is often ignored. Integration of various services at a single point of entry is necessary to enhance the delivery of care for underserved women. The family planning program has been an ideal site for preconception and women's health services in Maryland.

ENHANCEMENT AND INTEGRATION OF PRECONCEPTION/ INTERCONCEPTION CARE INTO MCAH/OFP PROGRAMS

Emmett Gonzalez, MD, FACOG, [1] ***Shabbir Ahmad, DVM, MS, PhD,*** [1] ***Arlene Cullum, MPH,*** [2] ***Leslie Kowalewski,*** [3] ***Susann J. Steinberg, MD, ABPH, MBA.*** [1] (1) Maternal

Child and Adolescent Health/Office of Family Planning Branch (MCAH/OFP), California Department of Health Services. (2) Sutter Medical Center, Sacramento, California. (3) California March of Dimes.

Program description: The California MCAH/OFP Branch is enhancing and integrating preconception/interconception care in its many programs and projects, including the Black Infant Health Program, the Adolescent Family Life Program, the Adolescent Sibling Pregnancy Prevention Program, Family PACT (Planning, Access, Care, Treatment), the Domestic Violence program, the California Diabetes and Pregnancy Prevention Program, the Folic Acid Campaign, the Oral Health Program, and the Comprehensive Perinatal Services Program. Using current research and the Title V five-year needs assessment, the Branch is assessing preconception/interconception health issues, performing a review of programs and looking for opportunities to further integrate preconception and interconception care into all of the Branch's programs.

MCAH/OFP Branch is addressing questions such as: What components of preconception/ interconception care are cost-effective to provide (may vary by program)? What MCAH/OFP providers (physicians/other clinicians, case managers, health educators, schools, other) should provide preconception/interconception care? Should preconception/interconception care be targeted to all women of reproductive age, or primarily to younger women, or to women with poor prior pregnancy outcomes, or in some other way?

The MCAH/OFP Branch is collaborating with other organizations that are also working on preconception/interconception care, including the March of Dimes, the American College of Obstetricians and Gynecologists and the California Preconception Care Initiative.

Services offered: Components of preconception/interconception care in California include: Smoking cessation assistance; substance abuse intervention, including alcohol; family planning; pregnancy spacing; prevention, diagnosis and/or treatment of sexually transmitted infections, including HIV; counseling and intervention for domestic abuse and violence; counseling on nutrition, folic acid use, and physical activity; mental health services; oral health services; attainment of optimum blood glucose control among women with preexisting diabetes; and assessment of socioeconomic, educational and cultural context.

Evaluation: Evaluation of process and outcome measures is periodically conducted on MCAH/OFP programs.

Conclusions: Preconception/interconception care has great potential for improving maternal and child health, but significant questions remain about what services should be provided and how to integrate these services into existing MCAH/OFP programs.

OKLAHOMA BIRTH DEFECTS REGISTRY: EVALUATION OF A PRECONCEPTION/INTERCONCEPTION CARE PILOT PROJECT IN URBAN AND A RURAL FAMILY PLANNING CLINCS ***Vicki R. Feuerborn, RN, MPH, CHES, Kay Pearson, MS, RD, LD,*** Oklahoma State Department of Health, Birth Defect Registry.

Program description including target population: The Birth Defect Registry developed, implemented and evaluated a preconception/interconception project, modeled after the Moos-Cefalo program, for women of childbearing age. The overall goal of the project was to promote healthy lifestyles of women and to prevent birth defects.

Intervention approach: A three-page health appraisal was administered in family planning clinics in two rural and one urban area. Clients were counseled on their risk factors and provided referrals. Clients received multivitamins as incentive gifts.

Evaluation: More than 300 women participated in the pilot studies. Pre-evaluation results indicated 83.8% of nurses found the questionnaire helpful in assessing risk factors, 86.3% of clients increased their understanding of risk factors and 89.7% of the nurses felt the tool helped with counseling and referrals. Childbearing women altered half of their top ten risk factors when nurses provided education/referrals based on risk factors. Post-evaluation results found 61% of clients increased their daily intake of multivitamins with folic acid and 62.1% reduced one to three risk factors in a three-month period.

Conclusions: The women's health appraisal and preconception counseling can identify individual risk factors, better educate clients, and promote health lifestyles in women of childbearing age. The educational tool can be replicated in physician offices or other family planning clinics. Lack of time in family planning clinics was a challenge in implementing the study. County health departments can use the tool to target prevention efforts for their childbearing age clients.

B.2 - Community-based approaches to Preconception Care.

Description: It has been said that women's health is at the heart of family health. Indeed, one facet, Preconception Care, has clear implications not just for women, but for their offspring and their families. Community-based approaches to preconception care describes a set of local public health approaches to promoting pre- and inter-conception care. This session showcases a variety of strategies and interventions, i.e.

- State-based social marketing approach with concurrent community activities targeting prenatal care providers and pregnant women;
- Healthy Start program directed toward post partum women;
- Local urban health department project focused on women of child bearing age at risk for obesity, domestic violence and HIV; and
- Coalition of professionals and citizens who developed and led to a community-wide health improvement plan.

Learning Objectives:

- Provide an overview of a variety of pre- and/or interconception care initiatives;
- Describe a discrete set of evidence-based approaches to address this critical aspect of women's health;
- Offer resources, opportunities, and linkages in/with local programs and practices in this area;
- Provide tools in the form of promising practices to improve pre-conception care;
- Challenge participants to consider new partnerships, coalitions and unique collaborations to positively impact women's health and birth outcomes.

Moderator: Maureen Fitzgerald

- Broward Healthy Start Coalition **(Robin Davenport)**
- Healthy Mothers Healthy Babies Coalition (HMHB) of Wake County, Raleigh, NC **(Laura Oberkircher)**
- Toward Women Health: Cities Take Action **(Helene Kent)**
- Preconception and Interconception Care Protocols **(Yvonne Beasley)**
- A Healthy Baby is Worth the Weight **(Stephanie M. Beaudette)**

INTERCONCEPTIONAL COUNSELING ***Robin M Davenport, RN, BSN, CCCE, CPPI, Barbara A Lesh, MPA*** Broward Healthy Start Coalition, Inc.

Program Description and Target Population- The program identifies reducible or reversible risks prior to pregnancy, maximizes maternal health, and intervenes to achieve optimal birth outcomes through individual and group sessions. The target population is all Healthy Start Postpartum women.

Services Offered or Intervention Approach and Providers – The approach involves assessment and reassessment of the woman's health using the Woman's Health Questionnaire and provides education and counseling to address the factors that may contribute to poor birth outcomes and to maximize maternal health. Focus areas include primary care, smoking cessation, substance abuse treatment, counseling to reduce stress, nutrition counseling, family planning, dental care, physical activity, baby spacing, maternal infection and environmental risk factors. All Healthy Start Case Managers are trained in the Interconceptional Counseling curriculum.

Evaluation and Evidence of Success-Evaluation is provided through site visit reports and peer record reviews. The greatest success is that over 30% of records reviewed reveal that women have been provided Interconceptional Counseling.

Conclusion- All women of childbearing potential should be educated to increase the awareness of the optimal health status needed to improve the birth outcome of a potential pregnancy. All components of the curriculum can be replicated. Challenges include: willingness of clients to accept the services and teaching the staff to market the program.

HEALTHY MOTHERS HEALTHY BABIES COALITION (HMHB) OF WAKE COUNTY, RALIEGH, NORTH CAROLINA. Contact: Laura Oberkircher, Executive Director

Target Population: Women in Wake County, North Carolina

Services offered or intervention approach: A coalition of community professionals and citizens developed a community-wide women's health improvement plan. The health improvement plan led to the development of a Lay Health Worker program directed at improving the health of community women. The Advisors work in seven low resource communities throughout the county, and provide information, resources, and needed referrals to women at any time they need assistance, not just when they are pregnant.

Providers: Community women, Healthy Mothers, Healthy Babies Coalition, the Wake County Human Services (the departments of health, social services, and mental health), March of Dimes, a local college, and sixteen other community partners participated in the development of the women's health plan. Each of the Lay Health Advisors associated with the Woman 2 Woman program is a community leader who receives regular training on health issues.

Financing: The Healthy Mothers, Healthy Babies Coalition, Wake County Human Services, March of Dimes, Wake AHEC, Wake County Child Fatality Team, St. Augustine's College, and other community partners provided financial and in-kind support to the Health Forum. Grant funding originally supported the Women 2 Women project, which is now funded through Wake County Human Services. The project has a half time paid coordinator, and each Lay Health Advisor receives a stipend.

Evaluation and/or evidence of success: Project evaluation is underway. The Women 2 Women project reaches about 313 women and their families and provides 82 needed referrals each month. Lay health advisors participate in neighborhood outreach going door-to-door or reaching women by phone. They also arrange house meetings, engage in street outreach, do presentations, and participate in health fairs and other community events.

Implications for advancing preconception care: Wake County Perinatal Periods of Risk data indicated that the poor birth outcomes associated with African-American women, who often begin their pregnancy in poor health, was driving the infant mortality rate in Wake County. Thus by working to improve the health of community women prior to pregnancy, it is expected that poor birth outcomes will be reduced.

Potential for application and/or replication of strategies and tools: The activities describes are replicable and have application to other communities. HMHB has developed reporting tools to track lay health advisor outcomes, and have training materials.

Lessons learned, both successes and challenges: The success of the women's health planning process is because community members and agency personnel have been involved in all stages of the plan's development. Community engagement can be challenging, but the positive results justify time, creativity, and effort in takes.

TOWARD WOMEN HEALTH: CITIES TAKE ACTION.

Helene Kent, RD, MPH, Maureen Fitzgerald, MPA
City**M**at**CH**, University of Nebraska Medical Center, Omaha, Nebraska

Program description including target population

A basis precept of preconception care is the need to maximize a woman's health prior to pregnancy, as women who are healthier and who actively plan and prepare for their pregnancies are more likely to give birth to healthy infants. City**M**at**CH** is working on a result-oriented Urban Women's Health Initiative which assists local health departments in improving the health of women. This session will describe interventions and services being used by members of City**M**at**CH**'. ***Toward Women's Health: A Compendium of Promising Practices to Improve Urban Women's Health*** will be discussed and it's development described. The session will also highlight other community-based work that City**M**at**CH** is doing to address preconception health efforts as part of improving the health of women. The target audience for this session is individuals who wish to learn more about promising practices for improving the health of women at the community level.
Conclusions: Cities and national organizations such as City**M**at**CH** are taking action to improve the health of women. This session will share lessons learned, challenges, and replicable strategies associated with this work.

PRECONCEPTION AND INTERCONCEPTION PROTOCOLS ***Yvonne L. Beasley, BSN, MN*** Marion County Health Department, Maternal Child Health Programs

Program Description Including Target Population

According to the March of Dimes, "Preconception health is the cornerstone of healthy infants, children, families, and communities, it is primary prevention and is essential to the prevention of prematurity and infant mortality." Short gestation and low birth weight (LBW) were the leading causes of infant mortality in Marion County (Indiana) in 2003. An Institute of Medicine (IOM) 1985 report noted that only "casual attention" has been given to best protections against LBW and other poor pregnancy outcomes, specifically, having a woman actively plan for pregnancy in good health with as few risk factors as possible, and being fully informed about her reproductive health before conception. In order to provide some uniformity and structure in providing preconception and interconception care in Marion County and to subsequently improve perinatal health and birth outcomes, preconception and interconception protocols for subset populations of women of child bearing age (15-44 years) at risk for obesity, domestic abuse, and Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS), will be developed through a grant awarded to the Marion County Health Department's (MCHD) Maternal Child Health Programs by the Indiana State Department of Health's Maternal and Children's Special Health Care Service. These subset populations were selected because they are at high risk of experiencing the perinatal outcomes of short gestation and LBW.

Services Offered Or Intervention Approach And Providers
In order to enhance Marion County's existing Indianapolis Healthy Start Project (IHS) and Maternal Child Health efforts to improve perinatal health outcomes, the grant will assist with funding a position for a Maternal Child Health Nurse Specialist to: 1) Provide literature reviews as a foundation for developing preconception and interconception protocols, 2) Assess and improve the content and quality of preconception and interconception care information, 3) Develop preconception and interconception protocols for obesity, domestic abuse, and HIV/AIDS, and 4) Provide education to Case Managers, Outreach Workers, Health Educators, Prenatal Care Coordinators, and other appropriate MCHD staff that would use the protocols in providing preconception and interconception services. The Indianapolis Healthy Start project is designed to reach lower socioeconomic underserved pregnant women, and their families, who have a disproportionate share of poor birth outcomes. There are approximately 3,600 births annually in the project area, which is 26% of all Marion County resident births. There are approximately 900 births to high-risk women, meaning that one in four births are at extreme risk of an adverse birth event. The number of preconception and interconception clients to be reached when IHS implements use of the protocols (October 2005-May 2006) is 4,000.
Conclusions
The ongoing benefits of the project are: 1) Structure will be established for providing relevant subset population specific preconception and interconception care in Marion County, 2) Women at risk for domestic abuse, HIV/AIDS, and obesity would continue to receive risk specific preconception and interconception care so that they can make timely and informed decisions about their reproductive futures, 3) Women in the subsets, and their partners would continue to be well informed in preventing unintended pregnancies, understanding risk factors that could effect reproductive outcomes before pregnancy and during the interconception period, 4) Use of protocols developed during the project by other agencies in the community, 5) Ongoing improvement in services and resources in preconception and interconception care, and 6) Improved perinatal health outcomes in Marion County.

A HEALTHY BABY IS WORTH THE WEIGHT ***Stephanie Mattfeld Beaudette, M. Ed., RD*, Jodi Drisko, MSPH, Sue Ricketts, PhD, Karen Trierweiler, MS** Colorado Department of Public Health and Environment, Women's Health Section

Program description including target population
A Health Baby is Worth the Weight is a social marketing campaign addressing inadequate weight gain during pregnancy. Research shows inadequate weight gain is the largest contributor to the low birth weight problem among singleton births in Colorado. This campaign targets prenatal care providers and pregnant women.
Services offered or intervention approach and providers
Providers receive education on the connection between inadequate weight gain and low birth weight; the importance of weight gain assessment and counseling; and how to use the campaign tools. Campaign tools include patient education materials, weight gain tracking methods, a combined BMI/gestational wheel, and the campaign Web site- www.healthy-baby.org.

Evaluation and/or evidence of success

Evaluation is done using PRAMS data to assess adequacy of weight gain and if women receive appropriate weight gain recommendations. In the future, birth certificate data will be used to determine the effect of inadequate weight gain on the low birth weight rate. Also tracked is the dissemination of materials and Web site usage.

Conclusions

Women often receive inaccurate weight gain recommendations, or none at all, from their health care provider. If providers are more familiar with body mass index (BMI) classification, and its potential impact on pregnancy outcome, they can educate women appropriately on adequate weight gain goals starting in the preconception period. Selling the idea that inadequate weight gain is a problem has been a challenge. Using county specific data and working with providers to plot their patient's weight on the weight gain grid has helped overcome this barrier. Materials for this campaign can be modified to meet the needs of any state.

B3 –Provider Education: What we know and what we need to do.
Educational programs for interdisciplinary health care providers will be described. Participants will hear how to recognize and care for chronic conditions. Screening for risk factors such as smoking will also be addressed.

Learning Objective:
Describe strategies to educate a variety of health care providers in preconception care.

Moderator: Margaret Comerford Freda

- An Interdisciplinary Preconception Care Curriculum for four Medical Specialties **(Cynthia Chazotte)**
- Helping Internists to Help Women with Medical Illness Have the Best Pregnancy Outcomes **(Margaret Miller)**
- What Every Health Care Provider should know about the "Preconception Visit **(Margaret Malnory)**
- Health Care Provider Knowledge and Practices Regarding Folic Acid, Us, 2002–2003 **(J.L. Williams)**
- Improving Preconception Care **(Peter Bernstein)**

AN INTERDISIPLINAY PRECONCEPTION CARE CURRICULUM FOR FOUR MEDICAL SPECIALTIES. ***Cynthia Chazotte MD, Peter Bernstein MD, Ellen Harrison MD, Sophie Balk, MD, Robert Koppel, MD, Leena Shah MD, Nancy DeVore CNM, MS, Karla Damus Ph.D., Margaret Comerford Freda Ed.D., RN.***
Departments of Obstetrics & Gynecology and Women's Health, Internal Medicine, & Pediatrics, Albert Einstein College of Medicine, Montefiore Medical Center, Bronx, NY. & Long Island Jewish Medical Center, NY

Program Description: A curriculum on preconception health care was developed specifically aimed at residents in ob/gyn, internal medicine, pediatrics, and family medicine.

Intervention Approach: The curriculum consists of a series of 5 power point slide sets: a general module for all a specialty module for: ob/gyn, internal medicine, family practice and pediatrics. The general module was designed to provide core knowledge important to all providing care to women. The specialty module describes relevance and importance of preconception care in the context of the specialty, barriers to preconception care and strategies for integration into practice. The format is both didactic and case-based and may be used as a standard lecture or as a small group discussion session. It can also be used for independent study.

Evaluation: Each pair of modules was piloted in all specialties in 2 sites. A total of 189 physicians completed the pre and posttests for the curriculum. Knowledge gain demonstrated on all content questions. National leaders in ob/gyn, internal medicine and family medicine and pediatrics reviewed the curriculum. The material was revised based on evaluation data.

Conclusions: This curriculum is a useful education tool that can be used for physicians at all levels of training as well as nurses and primary care practitioners. It is available as a free download from the March of Dimes website: http://www.marchofdimes.com/professionals/14429_1483.asp

HELPING INTERNISTS TO HELP WOMEN WITH MEDICAL ILLNESS HAVE THE BEST PREGNANCY OUTCOMES

Raymond Powrie[1], Lucia Larson[1], Margaret Miller[1], Niharika Mehta[1], Erin Keely[2], Robyn A. North[3], Karen Rosene-Montella.[1] [1]Women and Infants' Hospital of Rhode Island, Brown University, USA. [2]University of Ottawa, [3]University of Auckland, New Zealand

Background: Many of the most important interventions and decisions that will help ensure the best outcome for a pregnancy in a women with medical illness occur before a woman comes to see her obstetrician. At the same time the growing complexity of medical illness means that there is an increasing need for the expertise of internists to be the care of medical illness in pregnancy. Despite this need, training in medical illness in pregnancy is sorely lacking in the majority of medical residencies and fellowship programs.

Program descriptions: We describe a series of unique and related programs developed in collaboration with Women and Infants' Hospital of Rhode Island and Brown University that aim to assist internal medicine providers in pursuing further progress in research, education and clinical expertise related to the care of medical illness in pregnancy.

Services offered and evaluation of success:

1. **A mandatory internal medicine resident rotation:** All residents in the Brown University Internal Medicine and Medicine/Pediatrics program spend 4 weeks on the obstetric and consultative medicine rotation during their third year of residency. In addition to an extensive clinical experience at one of the nation's busiest obstetrics centers, the medicine residents all receive a 13 part curriculum (that includes a pre and post curriculum examination) on management of medical illness in pregnancy that equips them to help prepare women with medical illness for pregnancy. The residents demonstrate dramatic improvement in their knowledge about medical illness in pregnancy over the course of this rotation.[i] The curriculum is available on the web at www.obmed.org and received an award for excellence in medical innovations from the Society of General Medicine in 2000.
2. **A fellowship for internal medicine physicians:** Women and Infants' Hospital of Rhode Island and Brown University began a 2 year fellowship in Obstetric Medicine in 1993 to train internists to become leading educators and researchers in the care of medical illness in pregnancy. To date, 15 Obstetric Internists have graduated from this program and 13 of these graduates now practice obstetric medicine in academic medical departments. The program is unique in North America and is an important step towards creating a critical mass of internal medicine providers who are expert in the care of medical illness in pregnancy who can then train the next generation of internists in this often neglected area.
3. **A website resource for members of the International and North American Society of Obstetric Medicine (ISOM and NASOM):** The North American Society of Obstetric Medicine and the International Society of Obstetric Medicine were established in 1987 and 2002 respectively. These societies provide a multidisciplinary forum for the propagation and dissemination of knowledge about medical illness in pregnancy. In December 2004, the ISOM launched a new website at www.isom.net that was developed at and by Women and Infants' Hospital of Rhode Island with additional support from a grant from the State of Rhode Island. This website provides the following aids to the clinical

practice of obstetric medicine: 1) **educational resources** (shared PowerPoint slide presentations), 2) notification of collaborative **research opportunities** 3) regularly updated access to the latest **clinical guidelines** 4) access to excellent **patient information** resources 5) access to an obstetric medicine '**journal watch**' that informs members of important new articles in a wide range of journals that are relevant article to the care of medical illness in pregnancy 6) a '**clinical forum**' that offers the opportunity for members to discuss difficult cases on line with experts around the globe and 7) '**structured reviews in obstetric medicine**'- a systematic review of the world literature on key topics that will help us to guide our patients better about their expected outcomes in pregnancy.

Conclusion: Programs to better equip internists to care for medical illness in pregnancy are evolving

WHAT EVERY HEALTH CARE PROVIDER SHOULD KNOW ABOUT THE "PRECONCEPTION VISIT" ***Margaret Malnory, MSN, RN, Ann E. Conway, RN, MS, MPA and Jennifer M. Wilen, MPH*** Wisconsin Association for Perinatal Care, Preconception and Prenatal Care Committee

Program Description Including Target population: WAPC views preconception care as an integral component of all care for women of childbearing age and their partners, and advocates for the infusion of preconception care in all routine health care visits, rather than confine preconception care to a single visit.

Services Offered or Intervention Approach and Providers: There are three components of preconceptional care: health promotion, risk assessment and treatment/intervention. Health promotion includes information and counseling about issues such as lifestyle, environmental exposures and access to care. The systematic identification of risks is accomplished via a thorough assessment of family, personal, medical and social histories; home or workplace hazards; and parenting or social concerns. Treatment/intervention includes folic acid/vitamin therapy, contraceptive or infertility treatment and referrals to other specialty care. All providers who have contact with women of childbearing age are potential preconception care providers.

Evaluation and/or Evidence of Success: WAPC advocated for a single "preconception visit" for 15 years. However, we have learned that a single "preconception visit" is not conducive to achieving better outcomes in our current health care system, which is more responsive toward intervention-based approaches to health and less to prevention-based approaches. In addition, providers often fail to see the benefit to these visits.

Conclusions: The current practice of infusing preconception care into other health care visits is counter to the 1989 Expert Panel, commissioned by the US Public Health Service, that produced *Caring for Our Future: The Content of Prenatal Care*. This document states, "The preconception visit may be the single most important health care visit when viewed in the context of its effect on pregnancy" (p.26). However, the current managed care, cost-conscious health care environment does not support a single visit. Therefore, we have collaborated with a variety of health care providers to integrate preconception care into other visits. Approaches and tools that enable a broad range of providers to integrate preconception care into their practices can be disseminated to a variety of providers and incorporated into routine visits.

HEALTH CARE PROVIDER KNOWLEDGE AND PRACTICES REGARDING FOLIC ACID, UNITED STATES, 2002-2003

Jennifer Williams, MSN, MPH,APRN-BC,[1] Stephen Abelman, MPH,[2] Elizabeth Fassett, MS, CHES,[1] Cheryl Stone, MSPH,[3] Joann Petrini, PhD,[2] Karla Damus, PhD, RN,[2] Joseph Mulinare, MD, MSPH,[1]
National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention, March of Dimes, Rynne Marketing Group

Objective: To assess health care providers knowledge and practices regarding folic acid (FA) use for neural tube defect (NTD) prevention.

Background: In 1992 the U.S. Public Health Service (USPHS) recommended all reproductive age women consume 400 micrograms (μg) of FA daily to prevent NTDs. In a further effort to reduce the occurrence of NTDs, in 1998, the United States fortified grain products with FA, but at amounts insufficient to avert all FA-preventable NTDs. Research has shown that health care providers (HCPs) are instrumental in educating women about the need for supplemental FA.

Methods: Two identical telephone surveys were conducted among 611 obstetricians/gynecologists (OB/GYNs) and family physicians (FAM/GENs), and 500 physician assistants (PAs), nurse practitioners (NPs), certified nurse midwives (CNMs), and registered nurses (RNs) to ascertain provider knowledge and practices regarding FA. From survey data we examined HCP FA knowledge and practice patterns using t-tests, univariate and multivariate logistic regression modeling. .

Results: Universally, providers knew that FA prevents birth defects. Over 85% knew FA supplementation beyond what is available in the average diet is necessary. Only half of providers knew that 50% of pregnancies in the United States are unplanned. FAM/GENs were least knowledgeable (42%) and CNMs most knowledgeable (73%) about the correct FA dosage (400 μg daily). HCPs personally taking multivitamins were more than twice as likely to recommend multivitamins to their patients (Odds ratio [OR] 2.27 95%, Confidence Interval [CI] 1.75–2.94). Also, HCPs with lower income clients (OR 1.49, CI 1.22–1.81) and those with practices having more than 10% minorities (OR 1.46, CI 1.11–1.92) were more likely to recommend supplements. NPs in an OB setting were most likely and FAM/GENs were least likely to recommend supplements (OR 3.06, CI 1.36–6.90 and OR .64, CI .45–.90 respectively).

Conclusions: Knowledge about birth defects and the necessity of additional FA for NTD prevention was high. However, increasing HCP knowledge about unintended pregnancy rates and correct dosages of FA is needed. More opportunities for improvement exist in the fam/gen setting. Providers who actively participate in the health behavior of taking a multivitamin recommend multivitamin use more often. Educational efforts targeted at HCPs should be maximized. Finding a creative way to make folic acid counseling a priority in both provider settings is critical to getting the folic acid message from providers to patients.

IMPROVING PRECONCEPTION CARE. ***Peter S. Bernstein, MD, MPH*, *Tani Sanghvi, MD, MPH, Irwin R. Merkatz, MD*.** Albert Einstein College of Medicine/Montefiore Medical Center, Department of Obstetrics & Gynecology and Women's Health.

Objective: Preconception care has been identified as a critical component of prenatal care. Our objective was to improve the documentation and delivery of preconception care to all women of reproductive age attending an inner-city hospital's outpatient gynecology clinic. A secondary goal was to evaluate the knowledge and awareness of providers regarding preconception care.

Methods: A pre-intervention chart review of a convenience sample of nonpregnant women with reproductive potential who attend an inner-city hospital gynecology clinic (n=100) was conducted to evaluate delivery of preconception care. Items screened for included: family planning services, domestic violence, nutrition, and medical risk factors, medication use, appropriate counseling and use of referral services. All providers in the clinic were surveyed to assess their knowledge and attitudes about preconception care. A two part intervention was then carried out: (1) a one hour lecture for all providers and (2) a standardized preconception care form inserted in all charts. A post-intervention chart review of a second convenience sample (n=100) and repeat provider survey were then conducted to evaluate the effectiveness of the two interventions.

Results: Following the two-pronged intervention, there was evidence of improved documentation of the delivery of preconception care. Documentation of screening in almost all categories was found to be significantly improved ($p < 0.05$). The greatest improvements were noted in complete screening for medical risk factors (from 15% to 44%), for over-the-counter and prescription medication use (from 10% to 70%, and 30% to 77%, respectively), domestic violence (from 10% to 57%), and nutrition (from 9% to 50%). However, provider knowledge and attitudes about preconception care was not significantly changed.

Conclusion: The combination of education about preconception care and the insertion of a standardized form into a patient's chart led to a clear improvement in the documentation of preconception care. Given the significance of preconception care, insertion of a standardized form should be considered to help providers deliver complete and appropriate care to their patients.

B.4 - Tools You Can Use.

Presenters will share various tools and technology strategies for preconception care. The practice settings for use of the tools include clinical, schools and community.

Learning Objectives:

1. Learn about practical tools for practicing preconception care.
2. Learn how to use technology to promote preconception care.

Moderator: Cathy Melvin

- Preconception Toolkit—Making it easy for providers **(Ann E. Conway)**
- Folic Acid Education for Middle Schoolers and Girl Scouts **(Sue Samuels)**
- Evaluating a Preconceptional eHealth Education Program and Message Delivery Tool **(Elizabeth Fassett)**
- Preconception information for Hispanic women **(Beverly Robertson)**
- Folic Acid Every Day: An educational toolkit for public health nurses, nurse practitioners, dietitians and nutritionists**. (Ron Lutz)**

PRECONCEPTION TOOLKIT--MAKING IT EASY FOR PROVIDERS TO EDUCATE WOMEN AND FAMILIES ***Ann E. Conway, RN, MS, MPA and Jennifer M. Wilen, MPH***

Wisconsin Association for Perinatal Care, Preconception & Prenatal Care Committee

Program Description Including Target Population: The "Becoming a Parent" toolkit, developed by WAPC, provides materials for both providers and consumers about preparing for parenthood.

Services Offered or Intervention Approach and Providers: The "Becoming a Parent" toolkit provides five resources for both consumers and providers, including any primary care provider, specialist and community health provider who sees women of childbearing age. It includes:

- *Preconception Checklist*--A self-assessment for a woman and her partner, to be reviewed with a health care provider.
- *Health Care Provider's Reference*--Accompanies the *Preconception Checklist* and provides detailed instructions for use, information, references and resources for the provider.
- *Information to Consider if you're Thinking of Becoming Pregnant*--A detailed booklet and a shortened pamphlet version for women and families to use to think about the implications of a pregnancy and family.
- *"Becoming a Parent" video*--A 20-minute video of first-person testimonials that encourages people of childbearing age to think about two things: the decision to become a parent and healthy lifestyles.
- *WAPC Preconceptional Care Position Statement*--A document primarily for providers that describes what preconception care is, who should provide this care and its benefits.

Evaluation and/or Evidence of Success: Measures of success include order information and "hits" on the WAPC Web site for free materials. Over 7,000 copies of "Becoming a Parent" materials have been ordered since 2002 by hospitals, family planning providers, WIC clinics, public health departments and other organizations who provide preconception care.

Conclusions: By educating women and their partners about preconception care, women are empowered to take control of their own health prior to conception. In addition, these materials are extremely holistic, touching on not only medical issues women should consider, but also emotional, reproductive, environmental, social and financial issues.

THE ADVENTURES OF FOLIC ACID WOMAN ***Sue Samuels, BSN RN***
Christiana Care Health System, Wilmington DE

Program Description: The Adventures of Folic Acid Man/Woman program is designed for elementary and middle school children. The 30 minute program includes class discussion of healthy lifestyles and the importance of folic acid. The class then presents a short play about folic acid. Each student receives a folic acid activity book and folic acid drink cup, and is asked to share the message with family and friends. The second piece of this program is a Folic Acid Woman patch developed with the Chesapeake Bay Girl Scout Council, involving the scouts in various activities to learn about folic acid.

Intervention Approach & Provider: The school program is facilitated by a nurse educator or registered dietitian as Folic Acid Woman. The scout program is facilitated by troop leaders. The approach is interactive activities with the youth as described above.

Evaluation: Students complete a certificate including a picture or sentence reflecting what they learned. Teachers are surveyed about program satisfaction. Statistics are kept by age, sex, race and zip code to evaluate numbers reached

Conclusion: The Folic Acid program has the potential to provide an important preconception health message in a way that appeals to children, who then share with the adults in their lives. The biggest success is its positive reception by students and teachers. Requests for the program by teachers who have heard from others are reflective of its value. The program can be replicated easily through the Delaware chapter of the March of Dimes, which holds the Folic Acid Man copyright, and through the Chesapeake Bay Girl Scout Council.

EVALUATING A PRECONCEPTION eHEALTH EDUCATION PROGRAM AND MESSAGE DELIVERY TOOL ***Elizabeth Fassett, MS, CHES,[1] Katie Kilker, BS, CHES,[1] Patricia Mersereau, RN, MN, CPNP,[1] Elizabeth Parra-Dang, MPH,[1] Mary-Kate Weber, MPH,[1] Christine Prue, PhD,[1] Edward Fotsch, MD,[2]*** National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention,[1] Medem, Inc.[2]

Purpose: To address some of the barriers that health care providers face in reaching women of childbearing age with preconceptional health messages by developing, implementing, and evaluating educational programs disseminated through an online message delivery tool.

Program/project description: Approximately 50% of pregnancies in the United States are unplanned. Preconceptional health is important to ensure a safe pregnancy and healthy baby. Women report they would be more likely to perform important preconceptional health behaviors if encouraged to do so by their physician. Physicians cite lack of time and too many competing health messages as barriers to talking with women of childbearing age about these behaviors.

Intervention approach: Preconceptional health messages have been written for use in a secure physician-patient communication network, and are packaged as an automated education program in which physicians can enroll their female patients using an interactive health record iHR. Patients receive messages directly from their physicians via email. At the time of enrollment, a pretest measuring existing preconceptional health knowledge will be sent via email from the doctor to all women enrolled in the preconceptional health education program. Women completing the pretest will receive health messages. They will then complete a posttest at the end of the education program to measure any change in their knowledge. Usage data will also be collected.

Evaluation results:
In a preliminary survey of the effectiveness of automated education programs, 95% of program users reported that the education program service was easy to use and felt that the services could help busy doctors provide extra care and information to patients.

Conclusions:
This evaluation will show if these preconceptional health messages are effective in changing awareness and knowledge among women receiving the messages. It will also show if secure physician-patient communication is an effective new dissemination strategy for important public health messages.

ANTES DE QUEDAR EMBARAZADA: PRECONCEPTION INFORMATION FOR HISPANIC WOMEN ***Beverly Robertson, MLS, MA*** March of Dimes

Program description including target population
Over the past 9 years the Hispanic Outreach Initiative at the March of Dimes has focused on Hispanic women of childbearing age (18-45) and their families. Through the folic acid campaign, we identified pre-conception as a critical area of interest to Hispanic women. As a result, the re-launched Spanish language website, Nacersano.org, highlights pre-conception care on two main sections -- El Centro de Enseñanza del Embarazo and ácido fólico.

Services offered or intervention approach and providers
The March of Dimes offers Hispanic women planning a family several ways to access preconception information: expanded information on the website to correspond to zero-hit results on search terms; monthly email pre-conception newsletter; and direct email responses to inquiries.

Evaluation and/or evidence of success:
Based on web site stats, click-through-rates, and a growing email subscriber base, the success of the program is unprecedented and fascinating.

Conclusions:
- Hispanic women and their families care a great deal about starting a family
- There is a dearth of quality information in Spanish or it is difficult or confusing to access.
- There is confusion about preconception care issues and concerns.
- There is a need for information at lower literacy levels.

"FOLIC ACID EVERY DAY": AN EDUCATIONAL TOOLKIT FOR PUBLIC HEALTH NURSES, NURSE PRACTITIONERS, DIETITIANS AND NUTRITIONISTS

Ron F. Lutz, MSN, ARNP , Gail C. Rampersaud, MS, RD, LDN[1], Gail P.A. Kauwell, PhD, RD, LDN[2], Lynn B. Bailey, PhD[2], Jane A. Correia, BS[3], Lori Reeves, MPH[4], Lynda Knight[5]

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[*]Coordinator, Florida Folic Acid Coalition, Food Science and Human Nutrition Department, University of Florida.

Program description including target population: Public health recommendations advise all women of childbearing age consume 400 micrograms of folic acid daily to reduce their risk of having a baby affected by a neural tube defect (NTD). A national survey conducted in the U.S. in 2004 reported that only 37% of non-pregnant women aged 18-45 years take a vitamin containing folic acid, daily. Only 26% of women report that their healthcare provider discussed the benefits of folic acid with them. Yet, 89% of women say they are likely to take a multivitamin every day if advised to do so by their healthcare provider. In recognition of the important role of healthcare providers as reliable sources of health information, we developed the "Folic Acid Every Day" toolkit, which includes various educational materials to train healthcare professionals as well as their patients and clients about the importance of folic acid intake for reducing the risk for an NTD-affected pregnancy.

Services offered or intervention approach and providers: The toolkit consists of an educator's guide with lesson plans, video tapes targeted to health professionals and consumers, a CD-ROM containing presentation files and patient handouts, and an interactive teaching tool with color food flash cards to help consumers identify sources of folate in the diet and meet intake recommendations. The program focuses on educating

healthcare providers about the health benefits of folic acid and motivating them to communicate folic acid recommendations to their patients. Consumer materials focus on promoting daily consumption of a folic acid containing supplement as part of a healthy diet, identifying dietary sources of folic acid and food folate, and addressing ways to dispel barriers associated with vitamin use. Program materials can be used with individual patients or in group settings. A companion toolkit includes additional materials targeted to Florida's Hispanic population.

Evaluation and/or evidence of success: The program was pilot tested in five public health facilities in Florida and has been distributed in Florida and other state public health departments, March of Dimes offices, cooperative extension offices, and other public health agencies.

Conclusions: This program provided a comprehensive, flexible tool for educating health care providers and their patients about the importance of folic acid. Future activities include updating toolkit information to reflect current knowledge, training of healthcare professionals to increase awareness and use of the toolkit, and more extensive evaluation of the use and effectiveness of toolkit components. Funding for this program was provided by the CDC, Florida Dept. of Health, March of Dimes East Central Florida Division, March of Dimes North Central Florida Division, and Healthy Start of North Central Florida.

B.5*:* The Role of Infectious Disease Prevention in Preconception Care

Name of moderator:

Marian McDonald, DrPH, MPH, MA
Director, Office of Minority and Women's Health, NCID, CDC

Names of presenters:

Susan A. Wang, MD, MPH, FAAP
NCID, CDC

Madeline Sutton, MD, MPH *(invited)*
NCHSTP, CDC

Susan Reef, MD, MPH *(invited)*
NIP, CDC

Pre-Conception Prevention of Chronic Hepatitis B: Bridging the Gap to Break the Cycle of Infection (Chari Cohen)

Description of the session:

Proactive and prospective education and health care targeted at infectious diseases can improve preconception care, address health disparities, and generally promote healthy living and well-woman care. This session will discuss concepts underlying the prevention and control of infectious diseases that impact fertility, conception,

prematurity, fetal and infant mortality, congenital syndromes, and maternal-to-child transmission of infection. The session will provide an overview of the scope and diversity of potentially preventable infections, modes of transmission for the various agents, and related measures for infection prevention. Effective primary prevention strategies, including screening, education leading to behavior modification, and treatment will be discussed for two specific groups of infectious diseases, sexually transmitted infections and vaccine-preventable infections. Best practices and successes in programs, policies, and clinical practice, and barriers to overcome to address these infections will be reviewed to inform possible integrated preconception care strategies for other health issues and to promote healthy living for women during their reproductive years and beyond.

Learning objectives for the session:

1. Describe successful prevention strategies for infections that affect conception and pregnancy.
2. Establish infection prevention education as a key element of healthy living and preconception care to maintain fertility and facilitate healthy pregnancies.

3. Identify those lessons learned and those barriers that have been overcome with regards to preventing infections that affect conception and pregnancy in order to inform integrated preconception care strategies.

Pre-Conception Prevention of Chronic Hepatitis B: Bridging the Gap to Break the Cycle of Infection

Molli Conti, Chari Cohen, MPH, Joan Block, RN, Fonta Reilly, Peggy Farley
Hepatitis B Foundation, www.hepb.org

A. Program description including target population

Chronic hepatitis B, caused by the hepatitis B virus (HBV), is the world's most common serious liver infection. With over 400 million chronically infected individuals, HBV is associated with 80% of primary liver cancer globally. HBV continues to infect Americans in epidemic proportion, with over 1.25 million chronically infected Americans and 80-100,000 new infections each year. Adults between the ages of 19-39, which includes women of childbearing age, have the highest incidence rate. Primary prevention efforts, including vaccination of all infants and children in the U.S. have been successful in reducing the number of chronic hepatitis B infections. However, prevention efforts geared towards adolescents and adults, especially high-risk adults, have not yet shown such positive results. There is a hepatitis B prevention gap in women of childbearing age, particularly in those women who missed vaccination mandates as children, and were not given the catch-up vaccine as adolescents or young adults. With the silent nature of chronic hepatitis B, and the high rate of vertical transmission (over 90% of newborns infected at birth will develop lifelong chronic HBV infections, and an increased risk of progressing to cirrhosis or liver cancer), it is critical that young women be targeted for specific education and vaccination efforts.

B. Services offered or intervention approach and providers

Prevention of hepatitis B in women needs to have a multi-faceted approach. This includes vaccination campaigns geared at adolescent and young adult women,

particularly those at higher risk: having more than one sexual partner, a history of drug use (intravenous), having been diagnosed with another STD, or having Asian/Pacific Islander, Native American, Latino, or African American descent. "Missed opportunities" need to be addressed as well. Almost 50% of new hepatitis B infections could be prevented. HIV/STD clinics, family planning clinics, and drug/alcohol treatment centers are among the existing services into which hepatitis B education, screening, and vaccination programs can be integrated.

C. Evaluation

Existing model programs around the U.S. will be discussed, with evaluations, recommendations and ideas for future education and screening programs. Physicians and other health care providers who treat women of child-bearing age, and social service providers, need targeted education for hepatitis B prevention and diagnosis, with information for the proper follow-up for those women who test positive. Innovative "Train the Trainer" programs geared at educating health care and social service providers will be discussed. An overview of existing perinatal screening programs, and a model program for the integrative prevention of vertical transmission of hepatitis B will be described. Discussion will include current barriers, ideas for reaching high-risk women, and the use of innovative technology as an educational tool.

D. Conclusions

There are many barriers to preconception hepatitis B prevention at the national, state and local community levels. This presentation will outline the necessary components of a comprehensive education and awareness campaign for preconception prevention of hepatitis B, which should be integrated into a national hepatitis B prevention strategy.

Presenter: Molli Conti

Molli Conti is the Vice-President for Outreach Programs at the Hepatitis B Foundation, in Doylestown, PA. In the 6 years that she has been with the Hepatitis B Foundation, she has become a nationally recognized voice for the need to prioritize chronic hepatitis B as a serious health issue in the United States. She specializes in developing and implementing community outreach programs. Her expertise in bridging relationships with other professional organizations has helped the Hepatitis B Foundation become the premier portal for hepatitis B information nationwide. Recently, Ms. Conti played a key role in Congress designating May 9th-15th as National Hepatitis B Awareness Week. She sits on the Board of Directors for the National Viral Hepatitis Roundtable, and the National Task Force on Hepatitis B: Focus on Asians and Pacific Islanders.

Workshop breakout session C: DATA AND STRATEGIES

C.1 - Key Strategies for High-risk Women.

Evidence proves that preconception care programs specifically designed for high risk women result in better maternal and birth outcomes.

Learning objective:

1. Identify core components of preconception are programs designed to impact high risk women.
2. Discuss how to overcome the challenges that health disparities create for women at high risk for poor pregnancy outcomes

Moderator: Al Brann

- Interconceptional Education and Counseling of the Healthy Start High Risk Woman **(Laura Levine)**
- African-American women at Grady Memorial Hospital (GMH). **(Anne Dunlop)**
- Interconceptional Care Counseling: A Curriculum for Health Care Educators & Providers **(Diana Sierra)**
- A Novel Comprehensive Preconception Interconception Care (CPIC) Program. **(Ashlesha Dayal)**
- Magnolia Project **(Carol Brady)**

INTERCONCEPTIONAL EDUCATION AND COUNSELING OF THE HEALTHY START HIGH RISK WOMAN ***Laura M. Levine, RN, BSN,*** Florida Department of Health, Infant, Maternal, and Reproductive Health Unit

Program Description: Florida's Healthy Start program offers prenatal risk screening of all pregnant women and newborn infants in the state, and provides care coordination and direct services for pregnant woman or newborns found to be at risk for poor birth or health outcomes. After a steady decline in the 1990's, Florida's infant mortality rate has risen slightly over the past four years. The prematurity and low birth weight rates have also risen. Recent data from Pregnancy Associated Mortality Reviews (PAMR), Perinatal Periods of Risks (PPOR) analyses, and Fetal Infant Mortality Review (FIMR) teams have highlighted the strong association between a mother's health both before and during pregnancy and birth outcomes. Data has also shown that 50% of all pregnancies among adult women are unplanned. Based on these factors, Florida identified the pre/interconceptional period as one untapped area of opportunity to positively influence birth outcomes in Florida. In the fall of 2004, Healthy Start initiated a campaign to address infant mortality and improve pregnancy outcomes through education and counseling aimed at improving a women's health status before she becomes pregnant.

Services: Florida's Healthy Start Interconceptional Care and Counseling component was initiated through collaboration with Healthy Start Coalitions and Healthy Start providers, and subsequently integrated into existing Healthy Start programs without additional funding. Healthy Start Programs are able to develop their own curriculum, but individual Interconceptional Care curricula must be approved by the local coalition and adhere to the minimum standards outlined in the Healthy Start Standards and Guidelines. Providers, including nurses, social workers, health educators, and paraprofessionals in Healthy Start programs throughout the state are being trained to provide interconceptional education in a culturally sensitive manner that is applicable to the participant and their assessed risk factors. Technical assistance guidelines were also developed for use in Florida's county health departments as a guide for programs like Family Planning and prenatal care clinics to provide pre/interconceptional care to women of child bearing age. Educational components of both these initiatives include access to health care; management of maternal infections and chronic health conditions; weight,

physical activity and nutritional counseling; appropriate baby spacing; substance abuse and smoking; mental health issues; and environmental risk factors.

Evaluation: Currently, 40 counties are beginning to offer interconceptional counseling and education to their clients. Additionally, 23 counties plan to implement this service within one year.

Conclusions: Pre/Interconceptional care is an ongoing initiative for Florida. Additional training and integration into programs that touch women of child bearing age will continue. Our concept of integrating interconceptional education and counseling into existing care coordination programs for pregnant women has the potential to be easily replicated and implemented by health care providers, clinics, school health, managed care systems, or as a component of other care coordination programs.

AFRICAN-AMERICAN WOMEN AT GRADY MEMORIAL HOSPITAL (GMH). Anne Dunlop

Target population: African-American women who qualify for charity or indigent care who deliver liveborn or stillborn very low birth weight (VLBW; < 1500 grams) infants at Grady Memorial Hospital (GMH).

Intervention: The IPC Program provides 24 months of primary health care and dental services, enhanced nurse case management, and outreach in the community setting via a Resource Mother. Health care visits are offered every 1 -3 months and address 7 key areas linked to LBW delivery: (1) poorly –controlled chronic diseases; (2) short interpregnancy intervals; (3) reproductive tract infections, including bacterial vaginosis; (4) periodontal disease; (5) nutritional disorders; (6) substance abuse; and (7) psychosocial stressors, including depression and domestic violence. Group educational experiences are integrated into IPC health care visits. Home visits and telephone contact by the Resource Mother are offered twice monthly.

Providers: Primary care and outreach services are delivered by a team comprised of a family physician, nurse midwife/family nurse practitioner, periodontist, nurse case manager, and Resource Mother.

Financing: Medical care funded by GMH; research/evaluation components for feasibility phase funded by several foundations.

Evaluation: (1) A comparison of the health status of women before and after IPC in terms of the prevalence of conditions linked to LBW delivery; (2) A comparison of the proportion of women enrolled in IPC to those enrolled in a historical control group who achieve desirable interpregnancy intervals (of at least 9 months and preferably 18 months); (3) A comparison of the birth weight distributions and morbidity and mortality experience (prior to hospital discharge) of subsequent births to women enrolled in IPC and those in a historical control group; (4) A determination of the feasibility, acceptability, and cost-benefit of delivering IPC to women at risk of repeat VLBW delivery in the setting of a county-supported, public hospital.

Implications for advancing preconception care: Potential findings will contribute to the field of primary care of reproductive age women in several important ways: (1) the concept of IPC will be tested as a means of decreasing recurrence of VLBW delivery among high-risk women; (2) the content of a successful IPC package for improving the health of high-

risk women will be explored; (3) the potential cost effectiveness of IPC for high-risk women will be studied.

Lessons learned: We are currently in the 'pilot phase' and have enrolled 30 participants since November, 2003. To date, we have retained 22 women in the program.

- For about 1/4 of participants, unrecognized or poorly-managed chronic diseases can be identified in the IPC period;
- For about 1/3 of participants, substance abuse is likely a major contributor to repetitive VLBW delivery;
- Reproductive tract infections are common in the IPC period;
- None of the women desired to conceive another child in the next 2 years; yet many barriers to effective contracepting exist (misinformation about methods, perceptions of partners' desires, concerns about side effects). With extensive case management and patient education, we have achieved 21/22 women contracepting in accordance with their stated reproductive plan (1/22 became pregnant with an interpregnancy interval of 11 months; 21/22 with 12-15 month interpregnancy interval and counting…);
- For participants', concerns about finances, employment, and needs of the child are important stressors;
- Average annual outpatient charges for are $1,801 (average 4.6 visits, average $389 per visit).

Interconceptional Care Counseling: A Curriculum for Health Care Educators & Providers

Natalia Coletti, LCSW; Manuel Fermin, MPA; and Diana Sierra, MPH

Healthy Start Coalition of Miami-Dade

Program description including target population.

Women of childbearing age at high-risk for poor pregnancy outcomes, including pre-term delivery, low birth weight, and infant mortality. The Interconceptional Care Curriculum will be available in English, Spanish and Haitian Creole, includes topics that are applicable to all women of childbearing age and is of a 6th grade literacy level. It can be easily applied and replicated, with minimal if any adaptation, to any target population of women of childbearing age, including minority women and teenagers. The target population is tri-lingual, has low levels of literacy, and under-utilizes interconceptional care services available in the community. Not only are there limited services available in the community, high-risk women generally are unaware of the services, or don't know how to access them.

Services offered or intervention approach and providers.

Four (4) module interconceptional curriculum with the following major topics: 1) Baby Spacing; 2) Health and Nutrition; 3) Mental Health and Substance Abuse; 4) Infant Growth and Development. The curriculum is designed for individual education or group settings. The curriculum will be available in English, Spanish and Haitian Creole at a 6th grade literacy level. The Modules are based on interactive learning experiences; include the distribution and review of educational materials, and information, linkages and referrals to community resources. Health educators and community based organizations that provide educational and/or psycho-social services, among others, in a variety of settings.

Evaluation and/or evidence of success.
The curriculum is being developed and will be completed by June 30th 2005. At least three (3) modules will be available for presentation at the Summit. The curriculum is being developed in collaboration with the Miami-Dade Family Learning Partnership, a community-based organization that specializes in health literacy. Upon completion of each module, these will be reviewed, revised and approved by a group of external experts in the fields of interconceptional care, preconception care, fertility, obstetrics and gynecology, and overall maternal and child health. Upon implementation of the curriculum, participants will complete a pre- and post-test after each module to assess increase in knowledge. Effectiveness of the module in increasing baby-spacing in Miami-Dade County will not be evident for approximately 3-4 years.

Conclusions:
The implementation of the Interconceptional Care Curriculum will contribute significantly to the health, psycho-social and educational components of pre-conception care among women who have already had a child, prior pregnancy termination, prior fetal loss or spontaneous abortion. This curriculum will equip health care providers and educators to provide structured interconceptional care education that will significantly contribute to the advancing of preconceptional care to the target population in Miami-Dade County.

A NOVEL COMPREHENSIVE PRECONCEPTION INTERCONCEPTION CARE (CPIC) PROGRAM ***Ashlesha Dayal MD, Nancy DeVore CNM, MA, Lynne Moore CNM, Cynthia Chazotte MD.*** Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY

Program description including target population: We describe an innovative model of delivery of preconception and interconception care to a high risk population. The Comprehensive Preconception Interconception Care (CPIC) Program was developed with the support of the Greater NY March of Dimes. The CPIC is specifically designed to target women at risk for preterm delivery. The program is staffed by a Maternal Fetal Medicine Specialist and a Perinatal Nurse. The components of the program are:

Services offered or intervention approach and providers:
1. Outreach Patients who would benefit from the program are identified from numerous sources including: NICU, postpartum units, pediatric early intervention programs, internal medicine practices and subspecialty areas such as the sickle cell center and the community lupus society. The Perinatal RN and physician provide patient and physician education about preconception care at various sites through brief informational talks and brochures introducing the CPIC program.

2. Preconception Care Patients attending the CPIC Program are invited for 3 visits. At the first visit a history is obtained and targeted risk factors are identified. Risk specific counseling is performed and any required medical data is recommended and /or ordered. Patients are given a gift, transportation costs and a free 3 months supply of folic acid. The second visit is with the

perinatal nurse and is fully devoted to patient education, both general health concerns, as well as educational interventions targeted to the individual's risk factors**.** Education materials are given to the patient. At the third preconception visit, any new laboratory results, medical history and questions are addressed. Preconception optimal health and folic acid intake are stressed. Optimal times for conception are discussed depending on identified risk factors. If high risk care will be necessary, a list of providers in the patient's local area is offered.

Evaluation and/or evidence of success: All patients are entered into a data base to track outcomes, and all referring providers are sent letters about recommendations for the patient's future care, as well as a statement about counseling which has been provided.
This work was supported by the Greater New York March of Dimes.

THE MAGNOLIA PROJECT: AN INTERCONCEPTIONAL STRATEGY FOR IMPROVING BIRTH OUTCOMES. **Carol M. Brady, M.A., Executive Director,** Northeast Florida Healthy Start Coalition, Inc.

Target Population: The target population for the Magnolia Project is African American women age 15-44 who reside in a five-zipcode area of Jacksonville, Florida who, if they became pregnant, would be at-risk of having a poor pregnancy outcome.

Services offered or intervention approach: The project provides outreach, case management and risk reduction, well-woman and prenatal care, health education, and community development.

Providers: The project uses a collaborative, multi-agency staffing model. The Northeast Florida Healthy Start Coalition is the grantee and project administrator. Subcontractors include: the Duval County Health Department (clinical care and case management), Shands Jacksonville (case management and outreach), and Jp Expressions Community Ministries (outreach). Staff is co-located at a community site.

Financing: The Magnolia Project is primarily funded through a grant from the federal Healthy Start program ($925,000). Additional funding is provided through Medicaid and other third party reimbursement for prenatal, family planning and STD services, state categorical funding through the health department (about $250,000 a year) and smaller community grants for special projects.

Evaluation/evidence of success: In 2004, the HRSA Office of Performance Review completed an assessment of selected project outcome indicators (2001-2003). HRSA found: The Magnolia Project's B:W IM ratio was better than the ratio for the county as a whole; LBW among Magnolia participants increased over the three year period; The Magnolia Project was highly successful (>70%) in resolving key risks (lack of family planning, repeat STDs) among case management participants. Caveat: The project has primarily a pre-/interconceptional focus. Prenatal care is only provided to about 100 low-risk women a year.

Implication for advancing pre-conceptional care: The Magnolia Project demonstrates that "traditional' case management and risk reduction models developed for use with at-risk pregnant women can be adapted and used with at-risk women prior to and between pregnancies.

Potential for application/ replication: **High, especially within existing programs that come into contact with pre-/interconceptional women (fp clinics, peds clinics, STD programs).**

Lessons learned: Successes - Programs can be successful in working with women who are not pregnant to reduce risks; Challenges- Funding focuses on pregnancy, not women; "siloed" services (f.p., STDs, primary care, prenatal care); case management/risk assessment not universally accepted or valued in medical model of health care; need for longitudinal evaluation to determine impact of pre-/interconceptional intervention on outcome of next pregnancy; IM rates in community remain high.

C.2 - Data for Change: Action, Policy, and Practice.

Many preconception interventions have proven capable of addressing adverse maternal and perinatal outcomes. However in order to be general accepted and supported the data substantiating their efficacy is needed.

Learning objective:
1) Identify how data might be used to develop evidence-based interventions to create "integrated" models of preconception care
2) Identify how data can be used to market preconception care and direct related activities.

Moderator: Jennifer Skala

- The Importance of Marketing Perinatal Health to Non-Contemplators: The Cases of Folic Acid and Alcohol **(Kenneth Rosenberg)**
- Preconception Care: An Opportunity to Prevent Maternal Mortality **(Cynthia Chazotte)**
- Using the PPOR Approach to Implement Preconception Health Policies and Programs **(Amy Johnson)**
- Utilizing PPOR Results to Develop Strategic Interventions and Implement Healthy Start Interconceptional Education and Counseling Initiative **(Jennifer Opalek, Jane Bambace)**
- 51 The Fountain Project: Toward an Integrated Model for Evidence-Based Preconceptual Care **(Betty Cook)**

THE IMPORTANCE OF MARKETING PERINATAL HEALTH TO NON-CONTEMPLATORS: THE CASES OF FOLIC ACID AND ALCOHOL

Kenneth D. Rosenberg, MD, MPH,[1,2] Scott Spencer,[1] Jill M. Gelow, MD, MPH,[1] Alfredo P. Sandoval, MBA, MS,[2] Jodi A. Lapidus, PhD[1] [1] Oregon Health & Sciences University, Department of Public Health and Preventive Medicine, Portland, Oregon
[2] Oregon Office of Family Health, Portland, Oregon

Background: Perinatal use of folic acid (FA) and alcohol can prevent birth defects.

Methods: Oregon PRAMS surveys a stratified random sample of postpartum women who delivered in Oregon. Folic acid data is from births in 1998-99; binge drinking data is from births in 2000.

Results: FOLIC ACID: Women whose pregnancies were unintended were more likely to have not taken FA than women whose pregnancies were intended: adjusted odds ratio=3.70 (95% confidence interval [CI] 2.38, 5.56). BINGE DRINKING: Women whose pregnancies were unintended were more likely to have had at least one episode of binge drinking in the three months before they became pregnant: adjusted odds ratio=2.56 (95% CI 1.49, 4.40).

Discussion: Women whose pregnancies were unintended were more likely to have not taken periconceptional folic acid and more likely to have had at least one episode of binge drinking in the three months before they became pregnant. Attempts to educate fertile women about the need to take folic acid and stop using alcohol have focused on educating women who were contemplating becoming pregnant ("contemplators"). But only about half of U.S. pregnancies are intended. In order to reach women who are not intending to get pregnant ("non-contemplators"), public health messages must find ways to convince fertile non-contemplators to use FA and minimize drinking, especially binge drinking**.**

Preconception Care: An Opportunity to Prevent Maternal Mortality. <u>CYNTHIA CHAZOTTE, MD</u>, JEFFERY KING, MD, ADIEL FLEISCHER, MD, DONNA WILLIAMS, MPP. Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY, New York Medical College/St. Vincent's Medical Center, NY,NY, Albert Einstein College of Medicine/Long Island Jewish Medical Center, NY, American College of Obstetricians & Gynecologists, District II, Albany, NY.

Program Description: Although the maternal mortality ratio (MMR) has significantly decreased from 582 maternal deaths per 100,000 live births in 1935 to a current level of approximately 8.9, it is far from the Healthy People 2010 goal of 3.3. To achieve this goal it is important to understand the factors that contribute to the risk of maternal death. The Safe Motherhood Initiative, a collaborative project between the New York State Department of Health and the American College of Obstetricians & Gynecologists, District II, has undertaken a statewide review of maternal deaths in New York.

Evaluation: Preliminary data reveal that underlying medical conditions were the immediate case of death in 9.1% of cases and an associated caused cause of death in 36.4% of cases.

Conclusion: Maternal risks of pregnancy in women with chronic diseases are best addressed in the preconception period. Care prior to pregnancy allows women with medical disorders to attempt a pregnancy in optimal condition or decide to defer or avoid

pregnancy when risks are high. Preconception care provides an opportunity to prevent maternal mortality.

Using the PPOR Approach to Implement Preconception Health Policies and Programs

***Amy Johnson**, BS, PPOR Project Coordinator,* City**M**at**CH,** University of Nebraska Medical Center

Program Description:

City**M**at**CH** has worked with CDC, March of Dimes and community partners since 1997 to define, test and disseminate the Perinatal Periods of Risk (PPOR) Approach in U.S. urban communities to improve women's and infants' health. City**M**at**CH** utilized its Practice Collaborative (PC) model to facilitate translation of knowledge into prevention of feto-infant mortality. The Practice Collaborative provided selected community action teams with strategic leadership, scientific support, effective cross communication, structured peer exchange, continuous assessment and promotion of data driven policy and program decisions. The 2000-2002 PPOR-PC enabled 14 U.S. urban communities to translate knowledge into action through the six-step PPOR approach. The teams worked together over two years to build community and analytic "readiness," map and further investigate feto-infant mortality, translate findings into targeted community-driven actions, and evaluate impact.

Intervention Approach:

Cities' specific focus on <1500g deaths yielded targeted prevention strategies, notably preconception health. All PPOR-PC cities found the widest gaps and greatest excess of feto-infant deaths in the "Maternal Health/Prematurity" (VLBW <1500g >24 weeks) Period of Risk cell. The overall excess (compared to the rates of a national reference group) ranged from 3.9 to 14.9. VLBW deaths alone contributed from 22.9% to 73.7% of the overall excess of mortality. According the national 1998-2000 PPOR analysis, investigating feto-infant deaths to women 20 + age and 13+ years of education, the rate for black non-hispanic women (6.4) is almost triple for the rate for white non-hispanic women (2.2) in the maternal health/prematurity cell. In fact, the maternal health/prematurity rate for black non-hispanic women (6.4) was more than the overall feto-infant mortality rate for white non-hispanic women (5.8). As a result of the analysis, many of the PC cities focused their interventions on the health of African American women prior to pregnancy.

Evidence of Success:

As a result of using the PPOR approach, three Practice Collaborative (PC) communities developed new programs emphasizing preconception care (Jacksonville's Magnolia Project) and leveraged policy shifts toward supporting interconception care (Orlando's Save our Babies Project, St. Petersburg's Interconception Initiative). PC participation and concurrent use of PPOR approach accelerated local use of PPOR to drive public policy for perinatal health, especially in Florida, which subsequently replicated the PPOR-PC model in all urban areas.

Conclusions: PPOR implemented through the City**M**at**CH** Practice Collaborative model was effective for developing community-driven prevention for women and infant's health, with emphasis on pre and inter conception care strategies. Florida's communities illustrate strategic use of data for action. Implementation of the six-step PPOR approach, not just feto-infant mortality data, stimulated new and/or strengthened existing community partnerships to improve women's and infants' heath. Participation in multi-community Practice Collaborative models can accelerate data-driven, community-based change to focus on pre and inter conception health.

UTILIZING PPOR RESULTS TO DEVELOP STRATEGIC INTERVENTIONS AND IMPLEMENT HEALTHY START INTERCONCEPTIONAL EDUCATION AND COUNSELING INTIATIVE *Jennifer A. Opalek, R.N. , M.S.N. , M.P.H. , Jane E. Bambace, M.Ed.* **Pinellas County Health Department (PinCHD), St. Petersburg, Florida**

Program description including target population
As a result of participating in Florida's Perinatal Periods of Risk Practice (PPOR) Collaborative, PinCHD has developed strategic interventions that can be implemented in an urban community to improve women's health before becoming pregnant. PinCHD and the local Healthy Start (HS) Coalition of Pinellas agreed that including an educational component as part of Florida's HS programs would benefit women of childbearing age by providing an opportunity to reduce or eliminate important personal risk factors prior to the woman's next pregnancy. The target population for strategic interventions are pregnant and postpartum women enrolled in HS home visiting (HV) programs and women of childbearing age in Pinellas County, Florida. Program financing is through national, state and local grant funding.

Services offered or intervention approach and providers
PPOR analysis of Pinellas County's fetal and infant deaths from 1998-2000 indicated the greatest opportunity for improving maternal and child health lies in preventing prematurity and very low birth weight births. These conditions are most affected by the health of the woman prior to conception. Four specific opportunities have been identified and include 1) HS programs that provide HV to women during their pregnancy and into the postpartum period, 2) risk screening using a Women's Health Questionnaire that identifies 10 risk areas, 3) linkage to existing health programs, and 4) community health education. Pilot projects include "Beauty Talk," "While You Wait Education", and "What About Mom" (in pediatric office). HS home visiting, health education, and outreach staff are the providers.

Evaluation and/or evidence of success
PPOR analysis is being completed every three years to show trends. Information given, referrals made, and services received are documented using electronic encounters. Prevalence of risk factors will be identified from the Women's Health Questionnaire. Number of persons reached by health fairs, outreach, peer support groups, newsletters, and brochures is being reported.

Conclusions
Implications for advancing preconception care - 10 topic areas are the basis for marketing interconceptional health messages and provide the format for the Women's Health Risk assessment. Best practices to reduce or eliminate important personal risk factors prior to the woman's next pregnancy will result from implementing strategic interventions recommended by PPOR and HV programs. Potential for application and/or replication of strategies and tools - Statewide agency support was gained through the efforts of the Florida's PPOR Collaborative model. Florida has incorporated interconceptional education and counseling into the statewide Florida HS Standards and Guidelines. The two page Women's Health Questionnaire can be used in a variety of settings i.e. clinic, HV. Lessons learned, both successes and challenges - PinCHD is coordinating its programs to build a referral system in the medical community and community at-large to address women's health and social needs when women arrive for care.

THE FOUNTAIN PROJECT: TOWARD an INTEGRATED MODEL for EVIDENCE-BASED PRECONCEPTUAL CARE. **Betty E. Cook, PhD, Maternal and Child Health Coalition; V. James Guillory, D.O., M.P.H., Kansas City University of Medicine and Biosciences; Airick Leonard West, Ivanhoe Neighborhood Council; Jinwen Cai, M.D., Gerald L. Hoff, PhD, Josie Manning, R.N.C., M.S.** Kansas City Health Department; Paul C. Dew, M.D., M.P.H., University of Medicine and Biosciences.

Objectives: The infant mortality rate in Missouri and in the city of Kansas City, Missouri has revealed a consistent disparity in the rate of infant mortality between African American and white, non-Hispanic populations. The African American infant death rate has been anywhere from 2 to 3 times higher than the white non-Hispanic rate.

Methods: The Fountain Project combines the quantitative, population-based data of the Perinatal Periods of Risk (PPOR) Assessment with the Fetal and Infant Mortality Review (FIMR) process recommended by the American College of Obstetrics and Gynecologists. The PPOR technique links fetal and infant birth certificates with death certificates within defined geographic boundaries. This information is mapped by birth weight and the time period of infant death to reveal a specific period of risk. In further analysis, specific geographic zip code mapping is used to guide the selection of specific death certificates that are assessed in the Case Review process of the FIMR. A diverse team of medical and social service providers review the information abstracted from the medical records of mothers and infants. As problems emerge, a Community Action Team is empowered to construct intervention strategies to prevent the reoccurrence of these events. Based upon the reviews of 10 cases of Fetal and Infant Death, the Case Review Team identified consistent problems in the care of women within the five target zip codes identified by the PPOR analysis.

Results: The PPOR analysis revealed 475 excess deaths among African American infants that were attributable to the period associated with Maternal Health and

Prematurity. Additionally, the rates of Sudden Infant Death Syndrome were found to be significantly higher for African American infants. The Case Review process of the FIMR revealed that significant numbers of women were affected by social factors upon the birth of their first child. Factors such as domestic violence, loss of Medicaid coverage, or lack of continuity of care played a more significant role in infant mortality than other issues such as neonatal care.

Conclusions: This model combines the techniques of PPOR with FIMR to define factors impacting the disparity in infant mortality between African Americans and white Americans. Using these findings the Community Action Team, working with community leaders, has determined that the best response to community's problem is to develop a Women and Children's Wellness Center to address the social and clinical needs identified through The Fountain Project process. The primary aim of this center is to provide preventive care to high-risk families to improve the quantity and quality of preconceptual and prenatal care. This intervention is expected to raise the average birth weight for the women who live in the targeted geographic area, and to decrease the rates of preterm and low birth weight infants, as well as decrease the infant mortality rate.

C.3 - Using Surveys to Assess Knowledge, Attitudes, and Beliefs.

Knowledge, attitudes and beliefs serve as either enhancers or deterrents to behaviors relating to the provision of preconception care. Research has shown that they have the potential to influence provider and patient behaviors in this regard.

Learning objectives:
1) Understand how knowledge, attitudes and beliefs influence provider and patient behaviors.
2) Identify how surveys have been used to assess provider and patient knowledge, attitudes and beliefs.

Moderator: Joe Mulinare

- Consumer knowledge **(Janis Biermann)**
- Low income women of diverse ethnic groups who receive enhanced services **(Carol Korenbrot)**
- Pregnancy planning and lifestyle behaviors among nonpregnant women of childbearing age, Southern California, 1998-2000 **(Kathleen Raleigh)**
- Predictors of Preconception Care and Birth Defects Prevention **(Amy Case)**

A National Survey of Pre-pregnancy Awareness and Behavior Among Women of Childbearing Age ***Janis Biermann, MS*** **March of Dimes, White Plains, New York**

Program description including target population: In 1992, the US Public Health Service (PHS) recommended that all women who are capable of becoming pregnant consume 400 micrograms of the B vitamin folic acid per day to reduce their risk of

having a pregnancy affected by neural tube defects. In 1995, the March of Dimes received funding from the Centers of Disease Control and Prevention to conduct a benchmark survey of women of childbearing age to assess their knowledge and behaviors relative to daily consumption of folic acid.

Services offered or intervention approach and providers: Since the 1995 survey, the March of Dimes has commissioned The Gallup Organization to conduct seven follow-up surveys to measure any changes that may have occurred since 1995 in women's awareness and behavior relative to folic acid and other pre-pregnancy health issues, such as a preconception visit to discuss pregnancy with a health care provider and advice given by the provider about ways to have a healthy baby.

Evaluation and/or evidence of success: In 2004, 77% of respondents were aware of folic acid. This is an increase from 52% in 1995, but has remained constant since 2001. Vitamin consumption has been fairly constant from 1995-2004, with approximately 30% of nonpregnant women saying they take a multivitamin containing folic acid daily.

Conclusions: As such, these surveys serve as rough measures of effectiveness of the educational campaigns designated to increase awareness of folic acid and behavior among women of childbearing age. The finding suggests the need for continuous educational strategies to promote behavior change as part of preconception care.

LOW INCOME WOMEN OF DIVERSE ETHNIC GROUPS WHO RECEIVE ENHANCED SERVICES REPORT BETTER COMMUNICATION, DECISION-MAKING, INTERPERSONAL PROCESSES AND STATISFACTION WITH CARE. Carol Korenbrot

For decades federal and state Maternal and Child Health programs have developed health promotion and psychosocial services to enhance care of child-bearing age women of low income and diverse race and ethnicity. In California the Maternal and Child Health Branch sets standards for health promotion and psychosocial services of pregnant women in Medicaid managed care plans. The health promotion services include individualized assessments of what preventive health measures women need most to improve chances of healthy birth outcomes, and also culturally adapted information on how women can improve their own preventive health care. The psychosocial assessments include asking women about problems that they are having with food, housing, their partner, child care, and the like, and provide the women access to resources for obtaining help with the problems. We have evaluated the content, delivery and birth outcomes of these services for years. In recent evaluations of these enhanced services we have linked the services to improved communication to reach and serve low income women of diverse ethnic groups, and to improved satisfaction with care that encourages managed care plans to implement the services. Women report that the enhanced services do what providers have said for years: they improve women's involvement and satisfaction with their own health care. Satisfaction with care has in turn been linked with adherence to treatment, continuity of care and continued managed care plan enrollment.

Interpersonal processes of care according to conceptual theory include provider-patient communication, mutual decision-making, and provider respect and courteousness. Using confirmatory factor analysis we developed a multidimensional measure of interpersonal processes of care from a conceptual-based theory of quality interpersonal care for low income patients. We tested the reliability and validity of the measure in ethnically diverse pregnant women. We conducted a telephone survey of 363 African American, Latino (U.S. and foreign born) and Caucasian women in Medicaid managed care plans in California in 2001. We performed a psychometric evaluation of the quality measure, including reliability, variability, and construct validity. We identified the factors that define the dimensions of the measure for these women. The multidimensional measure was then used for assessing what women report happens between themselves and their providers in their prenatal care.

We tested whether health promotion advice and psychosocial assessment were associated with better interpersonal care and satisfaction using data from the same telephone survey and multivariate regression analyses. We found that women who received more health promotion and psychosocial services reported higher quality interpersonal care and higher satisfaction with care. What is more, for both types of service, the effects of the services on the quality of interpersonal care explained the effect of the services on satisfaction with care. In other words, providing health promotion and psychosocial services improves interpersonal care which in turn improves the women's satisfaction with their clinical care.

We conclude that the enhanced health promotion and psychosocial services as developed by Maternal and Child Health programs, particularly those of the California Maternal and Child Health Branch, constitute a best practice in developing communication and health promotional tools and methods that overcome important barriers to care of low income women of diverse ethnic groups. These enhanced services should be applied to preconception care as standards are developed and managed care plans are urged to include preconception care services.

PREGNANCY PLANNING AND LIFESTYLE BEHAVIORS AMONG NONPREGNANT WOMEN OF CHILDBEARING AGE – SOUTHERN CALIFORNIA, 1998–2000

Kathleen Green Raleigh, *PhD*, Jean M. Lawrence, ScD, Huichao Chen, MS, Owen Devine, PhD, Christine Prue, PhD, National Center on Birth Defects and Developmental Disabilities, Division of Birth Defects and Developmental Disabilities, Prevention Research Team,

Purpose: To examine the associations of pregnancy plans among non-pregnant women of childbearing age with a variety of health behaviors that are known to affect pregnancy and birth outcomes- alcohol use, cigarette smoking, multivitamin consumption, and visiting a health care provider.

Background: In the United States**,** approximately 50% of all pregnancies are unintended and birth defects affect approximately 1 in 33 newborns. Women whose pregnancies are

unintended are less likely to report healthy prepregnancy and prenatal behaviors and more likely to report poor birth outcomes. Knowing whether healthy lifestyle behaviors vary by pregnancy planning could direct family planning programs and policies.

Methods: A random telephone survey of 2,886 nonpregnant childbearing age women enrolled in the Kaiser Permanente Medical Care Program was conducted from 1998 through 2000, with a response rate of 55%. Logistic regression was used to generate adjusted odds ratios (AORs) for associations among pregnancy plans and lifestyle behaviors: multivitamin use, cigarette smoking, alcohol use, and a health care visit. All models included age, race, education, and marital status as covariates.

Results: Compared with women not planning pregnancy, women planning pregnancy within the next year (sooner) were significantly more likely to take a multivitamin regularly (AOR=1.41, 95% Confidence Interval [CI]=1.11–1.80), less likely to smoke (AOR =0.64, 95% CI=0.42–0.96), and more likely to have a health care visit (AOR=1.6, 95% CI=1.11–2.44). However, women planning pregnancy more than one year later were significantly more likely to report alcohol use (AOR=1.29, 95% CI=1.08–1.55) compared with women not planning pregnancy. Women planning pregnancy later did not significantly differ from women not planning pregnancy in reported multivitamin use, cigarette smoking, and healthcare visits.

Conclusions: Our findings signal the need for continued efforts from health care providers and public health professionals to develop compelling messages for ***all*** women of childbearing age about the adverse effects of smoking and alcohol on pregnancy and the importance of taking a multivitamin regularly, in hopes of improving healthy pregnancy outcomes and overall health and well-being.

PREDICTORS OF PRECONCEPTION CARE AND BIRTH DEFECTS PREVENTION Amy Case, MAHS; Tunu Ramadhani, Ph.D.; Mark Canfield, Ph.D.; Texas Department of State Health Services

Intervention Approach: Formative Research

Most birth defects occur in the very early weeks of pregnancy, before a woman has missed her first menstrual period, thus birth defects prevention rests almost entirely on adequate preconception care. Before meaningful and effective interventions can be designed to encourage women to obtain preconception care, it is first necessary to understand what underlying knowledge and beliefs exist in the target population, broadly defined as women of childbearing age (WCBA). This study uses responses from a population-based survey to elucidate factors that may predict whether a woman obtains preconception care.

Target Population: Women of Childbearing Age

In a telephone survey Texas women ages 18-44 (who were pregnant or had ever been pregnant) were asked, "…thinking of your current pregnancy (or last pregnancy), did you see a health care provider to discuss pregnancy BEFORE you became pregnant?" We

analyzed responses by various characteristics, including sociodemographic groups, source of knowledge about birth defects, and beliefs about the prevention of birth defects.

Methods: Survey Conducted by the CDC-Funded Texas Center for Birth Defects Research and Prevention

Conducted in 2001, the Texas Women's Health Survey (TWHS) is a 15-minute Computer-Assisted Telephone Interview of 1,200 WCBA that includes an assessment of knowledge and behaviors pertaining to pre- and post-conception prevention of birth defects. In addition to preconception care, the questions included the following topics: vitamin supplementation, healthy pregnancy information sources, beliefs about the causes of birth defects, and knowledge of the effects of alcohol consumption on pregnancy or the fetus.

Data on preconception care were stratified and percentages for each stratum were calculated. Using logistic regression we calculated crude and adjusted odds ratios to examine the association between preconception care and maternal characteristics using SUDAAN software.

Results: Potential for Application

About one-third of all respondents to this section of the survey answered, "Yes" to the question above, indicating that they had received preconception care before their most recent pregnancy. Preliminary analyses of the survey data indicate that the following characteristics were more predictive of preconception care: older maternal age (OR= 3.54), and household income of $50,000+ (OR 10.31). Higher percentages of women who had preconception care were observed among Hispanic women indicating Mexican-American identity (22.3%) compared to those saying they consider themselves to be Mexican (17.2%). Interestingly, first-hand experience with a preterm baby or a baby with a birth defect did not appear to predict preconception care. We will also look at how women's beliefs about birth defect prevention correlate with whether or not they had received preconception care.

Discussion: Implications for Advancing Preconception Care

Understanding important socioeconomic and cultural differences among WCBA as described above can help improve the design, delivery and promotion of preconception care services.

C. 4 - Reaching and Influencing Specific Populations.

DESCRIPTION: Selected programs designed to reach specific populations with preconception health information and services will be presented.

LEARNING OBJECTIVES:

- Describe awareness and consumption of folic acid among women of childbearing age in California and Florida.
- Describe preconception programs developed to reach Hispanic women, African American, and underserved women in several states.

- Learn how access to and communication in health care for women of childbearing age are relevant to preconception care.

MODERATOR: Annette Phelps

- Folic Acid Awareness and Use By Women in California (1997-2002) **(Patti Culross or Joyce Weston)**
- DOUGLAS Preconception Plan **(Patty Baker)**
- Save Our Babies – Orange County, FL **(Lesli Ahonkhai, Linda Sutherland)**
- The Florida VitaGrant Project: Promoting Pre/Interconceptional Health Through Education and Vitamin Distribution **(Elizabeth Jensen)**
- Access to and Communication in Health Care for Females of Child-Bearing Age **(Rosaly Correa-De-Araujo)**

FOLIC ACID AWARENESS AND USE BY WOMEN IN CALIFORNIA (1997-2002)

Suzanne C Haydu MPH, RD, Gretchen L. Caspary PhD, Shabbir Ahmad, DVM, MS, PhD, Joyce Weston, BSN, MSHA. Maternal Child, and Adolescent Health (MCAH)/ Office of Family Planning (OFP) Branch, California Department of Health Services (CDHS)

Program Description including target population: A folic acid education campaign targeting low-income and Hispanic women of childbearing age in California.

Services offered or intervention approach and providers: The CDHS MCAH Branch disseminated English and Spanish folic acid pamphlets developed by the Texas Department of Health from 1993-1999, in order to reduce the incidence of neural tube defects. A new set of English and Spanish folic acid pamphlets and posters were developed by the MCAH Branch in 1999 and were further revised in 2002; these continue to be distributed via MCAH programs. Supportive program-specific folic acid education materials and guidelines have been developed and distributed in MCAH programs. These interventions were in addition to the National Folic Acid campaign, which began in 1999 and reduced its intensity in 2002.

Evaluation: Annually since 1997, California Women's Health Survey (CWHS) respondents
($n \approx 4{,}000$) were interviewed by telephone (in English and Spanish) and asked questions regarding folic acid knowledge, attitude and consumption. Responses to these questions were analyzed for women of childbearing age (18 through 44 years). The preliminary analyses cited here are the result of population-weighted frequencies and logistic regressions.

There was a trend from1997-2000 of increasing folic acid awareness (increased from 55.4% to 65.5%) for women of childbearing age in California. The trend was most dramatic for Latina (from 26.2% to 39.6%) and Black respondents (from 45.4% to 60.2%).

However, Latinas consistently have lower knowledge and use of folic acid compared to other ethnic/racial groups. Latinas who are aware of folic acid cite physicians as their primary source of information. From 1999-2001, consumption of folic acid by women of childbearing age in California remained steady at 55%, but for yet undetermined reasons, fell to 50% in 2002. This decline in 2002 was statistically significant, and suggests an overall lowered awareness of the importance of folic acid.

In 2002, the strongest predictor for *not* taking folic acid was youth: logistic regression analyses indicated that women less than 24 years of age were 83% more likely to *not* be taking folic acid supplements than women aged 24 to 45. Other significant predictors for not taking folic acid included having less than a high school education, being a member of a non-white racial/ethnic group, having a household income of less than $35,000 per year, and not having health insurance.

Conclusions: The CWHS suggests that Latina women were consistently less likely than non-Latina women to consume multivitamins, prenatal vitamins or supplements containing folic acid/folate. Young women under the age of 24 are also at risk of not ingesting sufficient folic acid. A decline in folic acid intake in 2002 was substantively large and statistically significant, and suggests an overall lowered awareness of the importance of folic acid.

Encouraging physicians to recommend use of folic acid for all women, especially for Latina women, younger women, and women with low education levels may increase folic acid awareness and periconceptional folic acid use.

THE DOUGLAS PRECPMCEPTION PLAN. Patty Baker

The DOUGLAS Plan, a woman's guide to a healthy lifestyle, was developed in memory of Carole A. Douglas, a dedicated Public Health Nurse, whose career focused on making our community healthy. The DOUGLAS Preconception Program provides education for women of child bearing years on Diet, Omitting drugs, alcohol and smoking, Underlying health conditions,
Gynecological visits annually, Lactation for a lifetime of good health, Abstinence and birth control to avoid unplanned pregnancy and Screening and immunizations. As Public Health Nurses we partnered with multiple resources, which lead to the development of an educational program, including a pamphlet and power point presentation which have been utilized though out our community. A "Pre and Post Pregnancy I.Q. Tool" from March of Dimes has recently been added to our presentations as an evaluation tool.

Our pilot project, Madres Saludables, is a Spanish speaking women's project focused on preconception health in Lincoln, Nebraska. The Hispanic population in our community has seen a 143% increase in the last decade. The decision to focus on Madres Saludables was based on language barriers as well as lack of knowledge, interpersonal support and transportation that can compound women's health issues in this population. The DOUGLAS Preconception Program has allowed staff to provide education to empower women and has resulted in an increase in self sufficiencies in women attending this group. Meetings have been expanded to three times per month at convenient public locations and discussions at these sessions focus on the various topics of the DOUGLAS

Plan. Health screenings are offered twice per year and referrals are made to primary care physicians, dentists and other resources.

Plans are currently underway to duplicate this program for women who speak Arabic and could be adapted for presentations to any group of women between the ages of 14 and 45. Partnerships are being formed with other health departments to share preconception health resources and ideas on how to expand opportunities to reach all women in their child bearing years.

Funding for the Madres Saludables program has been obtained from a "Building Strong Families Grant". This grant has also facilitated a monthly calender and newsletter, which allows for greater dissemination of the DOUGLAS Plan and community resources.

In this past year we have learned that all women want to do well by their future babies. They want to be as healthy as possible prior to conception but many lack the knowledge. We have also learned to listen to each woman's story about her life's journey and to tailor information for individual needs. As we have incorporated women of different cultures into the DOUGLAS Plan, the plan itself has been strengthened by the effort. We have all become more sensitive as we guide women toward optimal health.

SAVE OUR BABIES – ORANGE COUNTY, FL Lesli Ahonkhai

Target Population-The primary target population is African American Women who live in Orange County zip codes with the poorest birth outcomes.

Services offered or intervention approach- Disseminating information to the community, hosting training workshops and informational sessions in non-traditional environments such as beauty salons and churches, and engaging the community for action.

Providers-Orange County Health Start Coalition contracted staff and Orange County Health Department

Financing-Orange County Healthy Start Coalition, March of Dimes (last year of three-year funding cycle), Pfizer and Aetna (one-time funding)

Evaluation and/or evidence of success- Results: 2004 Annual Report and Evaluation indicated an increased awareness of racial disparities in birth outcomes in the community, increased awareness of maternal child health issues, willingness of citizens and businesses to form an advisory committee for the program in order to take ownership of the problem, and increased understanding of how to access the current health and social services system.

Implications for advancing preconception care-fewer low birth weight births, fewer premature births that are preventable through education, and decreased racial and ethnic disparities in birth outcomes.

Potential for application and/or replication of strategies and tools- Strategies are replicable

Lessons learned, both successes and challenges-What Works? Peer education and support groups, culturally appropriate educational materials and an information and referral phone line have all been reported as good tools for this outreach program.

Barriers-Time constraints of business owners, i.e. beauticians, limited providers in targeted zip codes, and limited staff to address growing demand for service are all barriers to overcome.

THE FLORIDA VITAGRANT PROJECT: PROMOTING PRE/INTERCONCEPTIONAL HEALTH THROUGH EDUCATION AND VITAMIN DISTRIBUTION FOR WOMEN IN THEIR CHILDBEARING YEARS

Elizabeth Jensen, Lori Reeves, MPH, Betsy Wood, RN **March of Dimes, Florida Chapter, Florida Birth Defects Registry, the Florida Department of Health Infant and Maternal Reproductive Health Unit**

Program Description: The March of Dimes Florida Chapter, in partnership with the Florida Department of Health and the University of South Florida, implemented a three-year initiative to further pre/interconceptional health education and multivitamin use in underserved women of childbearing age. The effort is supported by 2 million dollars in grant funding from the Florida State Attorney General's Office as result of a national class action settlement against multiple vitamin manufacturers for price fixing.

Services: **Up to 150,000 bottles of free multivitamins with folic acid and folic acid education materials will be distributed annually. Additionally, the March of Dimes, Florida Chapter and the Florida Department of Health are collaborating to develop pre/interconceptional health education materials for distribution with the vitamins. Through the project, over 150 provider sites throughout the state have been identified to distribute the materials and vitamins, including WIC and Family Planning clinics, Healthy Start and Healthy Families programs, Early Head Start and Head Start, Community Health Centers, Targeted Outreach for Pregnant Women Act providers, faith-based organizations, other non-profit organizations and through community health events.**

In addition to receiving materials and multivitamins to distribute, providers receive training on pre/interconceptional health to promote greater awareness of pre/interconceptional health issues and their impact on maternal and infant health outcomes.

Evaluation: Interim results of the project will be available and shared with conference participants, including process results on implementation of the project and participant outcomes on whether women improve in their knowledge of folic acid, whether women consume the vitamins provided and the reported barriers to women taking the vitamins. The presentation will include best practices for initiating a statewide campaign for vitamin distribution over a large geographic region.

This project has implications for replication through other maternal and child health organizations and programs seeking to orient providers to interconceptional care issues and for implementing a statewide multivitamin distribution campaign for non-pregnant women.

ACCESS TO AND COMMUNICATION IN HEALTH CARE FOR FEMALES OF CHILD-BEARING AGE: RELEVANCE TO PRECONCEPTION CARE

Elizabeth H Dayton, MA, Rosaly Correa-de-Araujo, MD, MSc, PhD Agency for Healthcare Research and Quality, US Department of Health and Human Services

Program description including target population. Access to health care & good communication with providers is critical to receiving optimal preconception care. We begin to explore access to care communication with providers for women of child-bearing age.

Services offered or intervention approach. We build upon the National Healthcare Disparities Report (NHDR), performing data analysis comparing females of child-bearing age's access to care & communication with providers. Comparisons are made by age & race/ethnicity.

Evaluation and/or evidence of success. Findings for access: 1) Females of child-bearing age have less access to care than the general population. 2) In the years a female is most likely to bear children she is least likely to have good access to care. 3) Younger & older females of child-bearing age have better access to care. 4) Minority females of child-bearing age have particularly poor access to care. Findings for communication: Females of child-bearing age are more likely than the general population to report their providers sometimes-or-never explain things in a way they can understand, listen carefully to them, & spend enough time with them.

Conclusions. Individuals without good access to health care generally have poorer health status as they tend to receive less preventive & therapeutic care. Considering females age 20-24 are more likely to bear children than any other age group, & minority females face elevated genetic risks, interventions aimed at these populations facing particular barriers should be a priority. Additionally, much of preconception care involves lifestyle changes requiring good communication; interventions are needed to improve patient-provider communication for women of child-bearing age. Finally, the inequalities in care reported here should serve as the basis for developing strategies targeting Hispanic and black females.

SPECIAL SESSION

All Over the Map: Strategies from around the globe.

The utility of pre-pregnancy planning is generally accepted all over the world. Although practiced and delivered differently is has been advocated for health promotion and risk reduction all over the map.

Learning objectives:
1) Identify how preconceptional interventions are developed and delivered in various international settings.

Moderator: Shahul Ebrahim

- Application of preconceptional care in Korea **(Han Jung-Yeol)**
- Pre-Pregnancy Preparation Service of the Family Planning Association of Hong Kong **(Sue Lo)**
- Preconceptional HIV screening, Guangxi, China **(J Zhuo)**
- Social marketing preconception health care: a pilot study in the People's Republic of China **(Z. Li)**
- Preconception care to fill in gaps in prenatal care: Improving maternal and child outcomes through preconceptional care in resource poor islands of the Philippines. **(Angelita F. Ago)**
- Promotion of Preconception Care: The Belgian Project (**Pierre Delvoye**)

Application of preconceptional care in Korea

Jung-Yeol Han[1,2], Alejandro A. Nava-Ocampo[3], June-Seek Choi[1,2], Hyeon-Kyeong Ahn[1,2], Jae-Hyug Yang[2], Mee-Kyeong Koong[2], Inn-Soo Kang[2], Jae-Uk Shim[2]

Preconceptional care represents an important challenge for women's health in order to improve medical attention related to pregnancy and to reduce morbid-mortality related to obstetric complications. We have been trying different activities for improving preconceptional care in Korea. Such activities are being performed through the recently-founded The Korean Motherisk program at Samsung Cheil Hospital in Seoul, a hospital where approximately 8,000 babies are delivered every year.
The activities can be grouped in 2 parts: One is related to the clinical risk counseling and follow-up of women who are willing to have a baby. The second part is related to lectures and researches. We have developed a protocol that intends to identify the risk factors for adverse fetal and pregnancy outcomes by means of a questionnaire and laboratory tests. We have preconceptionally counseled and followed-up women who have chronic diseases such as epilepsy, hypertension, as well as those women with previous history of malformations, spontaneous abortion, chromosomal abnormalities. The lectures on preconceptional care are addressed to obstetricians and gynecologists as well as for women of child-bearing age at a Maternity School, in which we are getting data on folic acid intake. According to the data, rate of folic acid intake at periconceptional period is

9.6% (n= 764). Finally, we are writing a Korean book on preconceptional care which is intended to be used for public information.
As a conclusion, preconceptional care has to be more rapidly and broadly extended to all Korean women who are willing to be pregnant.

PRE-PREGNANCY PREPARATON SERVICE OF THE FAMILY PLANNING ASSOCIATION OF HONG KONG. Dr. Sue Lo, MBBS, MRCOG, Senior Doctor

The Family Planning Association of Hong Kong specializes in providing sexual and reproductive health services for men and women. It was established in 1950 and is one of the founding members of the International Planned Parenthood Federation in 1952. Its Pre-Pregnancy Preparation Service (PPPS) was launched in 1998. It is a new innovation in Hong Kong and remains the sole service that integrates medical, counseling and education services for couples who are preparing for conception. The attendance fluctuates between 3700 to 4700 each year depending on the desire of couples to conceive. The program is self sustainable. Each person pay US$75 which includes a doctor consultation and counseling with physical checkup and blood tests for blood group and type, complete blood picture, VDRL, hepatitis B antigen and antibody, rubella antibody (female only) and semen analysis (male only). HIV testing is offered with additional charge, on an opt-in basis after pre-test counseling. A VCD is used to deliver education on pregnancy preparation and contraception.

The service is targeted at both healthy couples and couples with pre-existing diseases that may affect conception and pregnancy. The aims of the service are:

1. to facilitate conception by detecting risk factors for female subfertility through history taking and physical examination and performing semen analysis for men;
2. to help couples understand their own health conditions and to adjust lifestyle behaviour if risk factors are identified;
3. to assess for hereditary diseases that may affect the offspring;
4. to prepare the couple to be responsible parents.

For those couples with pre-existing medical diseases, especially when the female is affected, the pre-pregnancy counseling will focus on:

1. helping couples understand how the disease will affect the pregnancy and their offsprings and vice versa
2. optimizing the chance of conception and minimizing risk during pregnancy by advising the woman to change current medications that are teratogenic, to stabilize her medical condition before getting pregnant and to have close follow up and monitoring by the obstetricians and physicians when she is pregnant.

The basic counseling and assessment is provided by non-Specialist and those with complicated problems will be seen by Specialist in Obstetrics and Gynaecology. Regular case conferencing is conducted to enhance the knowledge of the non-Specialist and improve their counseling skill. The continuous support of clients reflects the popularity and success of the service.

PRECONCEPTIONAL HIV SCREENING, GUANGZI, CHINA

J Zhuo [1], W Liao [2], Peilan Qin [2], Yihai Chen [2]
1,Guangxi Provincial Centers for Disease Control, Nanning, Guangxi
2,Hezhou City Centers for Disease Control, Hezhou City, Guangxi

Babu County (population 0.93 million) of Hezhou City, Guangxi Province (population 48.9 million) experienced the fastest increase in reported HIV/AIDS cases in the Province between 2000 (18) and 2004 (629). Though the epidemic predominantly affected drug users initially, with a narrowing male to female ratio of HIV/AIDS cases (2004; 4:1), affecting mainly the younger age group (90%, age 20-49 years) and predominantly rural farmers (70%), superimposed on a low condom usage rate (STD clients 5%, drug users 5%, sex workers 40%), the potential for mother to child transmission was evident (38 HIV-exposed pregnancies during 9/2003 through 12/2004). To reduce the impact of HIV on women, children and families, the county health department embarked on a three-pronged approach in 9/2003 embedded in the premarital medical examination system. The activities included family and community awareness to reduce transmission among couples and young people, preconceptional voluntary HIV counseling and testing for couples (PVCT), and VCT and antiretroviral therapy to HIV infected pregnant women. To facilitate the PVCT, antenatal VCT and antiretroviral treatment component, 40 antenatal and maternal/child care clinicians were trained. To facilitate the broad based interventions, 942 medical and public health professionals and barefoot doctors were trained on VCT and other prevention approaches. To facilitate the community engagement process, training seminars using a combination of entertaining and educational films were conducted in middle schools and high schools for both students and adults in the catchment's area with a one-time post and pre-test evaluation in selected locations. The students were required to take educational materials to their homes to educate parents and neighbors as part of their homework requirements. Information on HIV and VCT opportunities were displayed on the community information blackboard, which is the usual tool for disseminating information on public health, legislative, and social policies to villagers and updated frequently by community volunteers. In the first quarter after launching the program (October to December 2003) an average of 1099 (73%) of the 1500 eligible couples each month sought PVCT consultation, and 52% of them (or 38% of eligible couple) accepted HIV testing. By the end of 2004, the PVCT consultation rate among eligible couples increased to 77% and HIV testing rate reached 80% (or 62% of all eligible couples). Screening among pregnant women in 2004 who did not participate in earlier PVCT, identified 27 HIV infected women. Our pilot efforts indicate that screening for HIV in the preconception period is feasible and acceptable in this rural community. Community sensitization played an important part in its success. A combination of testing strategies implemented at various stages of pregnancy and before pregnancy would help identify all women at risk for HIV exposed pregnancies.

SOCIAL MARKETING PRECONCEPTION HEALTH CARE: A PILOT STUDY IN THE PEOPLE'S REPUBLIC OF CHINA - Z. Li, M. Zhu Peking University Health Science Center

In October 2003, a longstanding requirement that couples planning marriage in China have a premarital health check, including a routine physical examination, laboratory tests, and reproductive health education, was removed, and this visit became voluntary. Reported rates of premarital examinations plummeted, and health officials voiced concern that women were not receiving adequate risk assessment and prepregnancy education, particularly regarding the benefit of folic acid in preventing neural tube defects, which contribute significantly to infant mortality in China. We conducted a pilot study to test and refine a preconception health care social marketing plan to increase the rate of preconception health care in 2 northern counties (Xianghe and Mancheng, in Hebei Province) and 1 southern district (Huishan, in Jiangsu Province) during February and March, 2004. A three-stage process was conducted, comprising 1) ascertaining the nature of the problem regarding delivery of preconception care through the use of a series of questionnaires and interviews, 2) developing a test plan to promote preconception care, and 3) evaluating and refining the plan. More than 91% of 10,000 questionnaires were completed, and 140 subjects were interviewed, including women of reproductive age, maternal and child health (MCH) workers, and local government officials. Major obstacles to preconception care identified were the lack of systematic organization of these services within the health care system, poor coordination between governmental organizations involved in marriage, family planning and health care, unclear media messages, and the perception of the term "voluntary" by women to mean "unnecessary". Women desired health messages that were clear about the importance of preconception care in the prevention of birth defects. The implementation plan included the use of social marketing to solicit government support, to coordinate the various government organizations, to train MCH workers at all levels, and to market the concept of preconception health care to women of childbearing age. To solicit government support, a project coordination committee was established, including high level officials from the county project office, the county women's office, the bureaus of health, family planning, and civil administration, and the women's federation. In addition a series of face-to-face interviews were conducted with government officials, workshops were held in the county, and an official document was issued by the county government, and a workshop, attended by high level officials, was held. Recommendations were developed for improving coordination among government departments and organizations, including development of an education program that can be presented by the MCH institute, the marriage registration office, and the family planning office, whenever women have contact with the system. Following the workshop, 95% of women reported that they would be willing to pay up to RMB 100 yuan (US$12) for preconception health care services, and half indicated that more and better health messages were needed. In China, vertical systems for marriage registration, family planning, and health care impede delivery of important health care messages to women of reproductive age. Improving coordination among government agencies, developing training materials that are targeted to different groups, and promulgating clear, consistent messages concerning the importance of preconception care that are delivered in all settings where women may have contact with the system before pregnancy will create demand for these services to the benefit of women and children.

PRECONCEPTION CARE TO FILL IN GAPS IN PRENATAL CARE: IMPROVING MATERNAL AND CHILD OUTCMES THROUGH PRECONCEPTIONAL CARE IN RESOURCE POOR ISLANDS OF THE PHILIPPINES. Angelita F Ago, MD. Bicol Chrisitian College of Medicine, Legaspi City, Philippines.

Improvements in maternal and child health services in developing countries have contributed substantially to betterment of the health of women, children, and pregnancy outcomes. However, availability of quality antenatal care cannot be taken for granted in remote areas such as small inhabited islands, sparsely populated areas, and mountainous areas with small populations. Such was the case in some Islands of the Philippines in the Experience from providing mobile health services in remote islands of the Philippines in 1980s. To alleviate the situation, embedded in the family planning framework, we embarked on a program to provide scheduled mobile-based bundled services to women and children including surgical and non-surgical family planning, immunizations, nutritional supplementation, and screening for chronic diseases for both pregnant and women in reproductive age. The pros and cons of the approach were discussed with the community leaders. On a routine monthly schedule, a comprehensive team comprising of obstetricians, pediatricians, medical students and nurse midwives traveled to such communities and provided services for one to 3 days duration. Arrival of the team and schedules were announced through various mechanisms and word of mouth of women who and men who already received services. Pregnant women who were identified as high risk and needed continued or tertiary care were transported by the team to the main island after stabilization of the condition. Nonpregnant women, who were at risk of pregnancy and who did not participate in contraception services, who were identified to have chronic medical conditions (cardiovascular, goiter etc) were referred to specialty services in the main island. Family planning services and clinical consultations were provided free of cost, whereas a small fee was collected for medications. The increase overtime in number of women attending services indicated that such comprehensive services were acceptable to the population. Although care from a reputed institution at a time when service availability was limited may have contributed to the success of the program, our success could be attributable also to informed process of promotion of community participation through the village captain and perceived benefits to the community. In developing countries, given the increase in obesity, alcohol and tobacco use, and prevalence of many chronic diseases including micronutrient malnutrition, preceonceptional care promotion is a useful adjunct to fill the deficits in antenatal care. Further, in an ever increasing urbanized world, even in resource poor countries women have more education, knowledge about health risks, and income than before making promotion of preceonception care concepts feasible. Women in developing countries need not wait until prenatal care system is perfected before they are offered better opportunities. Also, women in developing countries should not be made to wait for the natural narrowing of “inverse equity” in diffusion of newer approaches to improving health. The WHO year of women and children provide a platform to elevate discussion of preconceptional care concept among developing country health advocates and policy makers.

PROMOTION OF PRECONCEPTION CARE : THE BELGIAN PROJECT.

Pierre Delvoye*, *Mireille Delestrait, Sarah Collard, Edith Derzelle, Katy Guillaume, Pascale Roos and Sophie Alexander, Office de la Naissance et de l'Enfance, Belgium

Background : There is actually no organized preconceptionnal visit in Belgium. Preconceptionnal cares (counselling, visit, examinations, folate prescription, immunisation if necessary) is only "opportunity cares" and we observe many different attitudes in that field. Moreover, the incidence of neural tube defects is yet too high in Belgium, while some well implemented attitudes are not evidence based. The O.N.E (*"Office de la Naissance et de l'Enfance"* = "Organization for Birth and Childhood"), the governmental organization of the French Speaking Community of Belgium for promotion and organisation of MCH, has proposed, in its latest strategic plan, the promotion of preconceptionnal care. The O.N.E already has in charge the child health protection and promotion and also that of women during pregnancy. In particular, it organizes free prenatal and child health clinics until 6 years all over the French speaking part of Belgium. The French Speaking Community of Belgium represents approximately 5 millions people and 50 thousands births per year.

Choice of a strategy : An ad-hoc committee has been instituted to propose strategies, activities, financial issues and options, and evaluation modalities. This had first to make the choice of a strategy: either the O.N.E itself would organize preconceptionnal care in its own network, or it organizes a campaign addressed both to people and to professionals. This second strategy was selected, for the time being, by the committee campaign.

Purposes of the campaign : The O.N.E does sustain the project of a campaign to inform and to sensitise the population about the benefits of preconceptionnal visits. It hopes that such a campaign will incite women who have a child project to consult a medical practitioner before pregnancy.

Target Population: The campaign will target, in one side, all people between 15 and 35; and, on another side, health professionals involved in women and children health protection and promotion: not only general practitioners, gynaecologists, paediatricians, midwives and all medico-social workers of the ONE, but also the Family Planning Centres, and PSE Centres *("Promotion de la Santé à l'Ecole"* = Health Promotion at School), school affiliated organisms, which have in charge health education, in particular of adolescents.

Methodology:

The first step was the creation of the tools:

i. Folders, posters, letters to professionals and guidelines has been realized.

ii. They are actually evaluated by experts of the ad-hoc committee and tested by a selected group of ONE-health visitors, some social workers and other midwives or nurse-practitioners.

The second step will be the initialisation of the campaign itself by dissemination of the different messages:

i. People in procreative age will be informed by different ways: posters, folders, radio and TV spots, but also by medical practitioners, and by ONE-health visitors, care-takers of the Family Planning centres and of the PES centres which would relay the information's.
ii. Medical and social workers will receive folders and posters to distribute to the target population. They will also receive a letter to inform them about the purposes and the methodology of the campaign.

Finally, medical practitioners will receive the guidelines to help them in the choice of information's to give and exams to ask.

Evaluation

Evaluation procedures will consist in interviews and sample surveys both in the target population and in the medico-social workers to estimate the behavioural changes in that field.

D.1 – Medicaid Waivers for Family Planning, Preconception, and Interconception Care.

Moderator – Kay Johnson

William H. Hollinshead, MD, MPH, Medical Director - Division of Family Health Rhode Island Department of Health

Preconceptional care includes an array of interventions to address medical, psychosocial, and environmental risks. Many of these occur in the context of office or clinic practice. Policy and finance barriers limit the availability of preconception care and, reportedly, limit professional practice changes. Millions of women of childbearing age lack adequate health coverage, and others life in underserved areas. Service delivery fragmentation contributes further to this problem. This session will review barriers and opportunities for financing the ongoing process of preconception care using Medicaid, particularly waivers and expansion programs. More than a dozen states have implemented so-called "family planning waivers" under Medicaid. Many of these efforts were designed to provide coverage during the pre- and inter-conception period for low-income women who would otherwise be uninsured. States' experience with these efforts will be described from the point of view of preconception risks and service needs. Opportunities and implications for other states' replication will be discussed.

D.2 - Disparities in Preconception Health Care.
Moderator: Rosaly Correa-de-Araujo

- Disparities in Preconception Health Care **(Rosaly Correa-de-Araujo)**
- Socioeconomic and racial disparities among infertility patients seeking care **(Tarun Jain)**
- Preconception prevention and treatment of infectious diseases among minority women **(Lara Weinstein)**
- Disparities in Perinatal Outcomes using PPOR: Results for the Bay Area Data Collaborative **(Ellen Stein)**

DISPARITIES IN PRECONCEPTION HEALTH CARE: OVERVIEW *Rosaly Correa-de-Araujo, MD, MSc, PhD**

Preconception health care is complex and involves genetic screening and counseling; screening, immunization, counseling, and treatment of infectious diseases; investigating exposure and effects, and managing environmental toxins; assessing and treating chronic conditions; and, addressing lifestyle behaviors. Although not all causes of low birth weight, infant mortality, and obstetric complications can be prevented, the risks for certain birth defects can be significantly decreased through preconception counseling as well as prenatal care. The risk of having a medical condition during pregnancy varies by both age and race/ethnicity. For instance, the incidence of anemia among teenage mothers (36 women per 1,000 live births) is greater than among other women of child-bearing age (20 women per 1,000 live births). Also, diabetes incidence among teenage mothers is far lower than among other women of childbearing age. Racial/ethnic differences in risk factors also exist and include: a greater incidence of anemia among American Indian/Alaska Native compared to nonHispanic white women (56 vs. 22 per 1,000 live births); a greater incidence of pregnancy related hypertension among American Indian/Alaska Native compared to Asian/Pacific Islander women (46.5 vs. 20 per 1,000 live births); an increasing number of HIV/AIDS cases among women, with Hispanic and nonHispanic black women accounting for over three-fourths of women living with the disease; and, nonHispanic women being four times more likely to smoke during pregnancy, although the prevalence of smoking is generally lower among pregnant women in all racial/ethnic groups. In addition to the examples of disparities highlighted above, women of child-bearing age (in particular minorities) face insurance and provider-related barriers to receiving health care, with black and Hispanic women and those of lower socioeconomic power being at higher disadvantage. Also, quality of care may be compromised. For example, women between ages 25 and 34 are the ones with the highest rates of testing for HIV, but screening rates should be increased for all women of all races/ethnicities. The percentage of pregnant women receiving prenatal care in their first trimester has remained steady for the past two years (83.5%), but smallest increases were observed for white women (5.6% vs. 16.5% for Hispanic women). Considering that women ages 20 to 24 are more likely to bear children than any other age group, and that minority women face elevated genetic risks, interventions aimed at providing preconception care for these populations should be a priority. It is very important that

primary care clinicians and gynecologists discuss ways of improving pregnancy outcomes with all women of reproductive age who may become pregnant. Communication between both types of health care professionals should be a continuous process that occurs at each visit for routine preventive care and in particular before and during pregnancy. This is essential to ensure quality preconception and prenatal care is provided and disparities in health care are eliminated.

SOCIOECONOMIC AND RACIAL DISPARITIES AMONG INFERTILITY PATIENTS SEEKING CARE ***Tarun Jain, M.D.*** University of Illinois at Chicago, Department of Obstetrics and Gynecology

Program description including target population:

Although infertility treatment with IVF in the United States is primarily privately funded (fee-for-service model), a few states have laws mandating insurance companies to cover this expensive treatment. Such mandated coverage results in increased utilization of IVF treatment, thereby implying improved access to care. Looking in a state (Massachusetts) with the most comprehensive mandate to cover IVF treatment, our objective was to conduct a pilot study to examine the socioeconomic and racial makeup of patients seeking infertility care, and compare it to the demographic makeup of Massachusetts (MA).

Services offered or intervention approach and providers:

A self-administered questionnaire by mail was conducted to 1500 consecutive patients who had sought care for infertility at least once at a large and well-known hospital-based fertility center (Brigham and Women's Hospital) in Boston, MA. This Center also has four satellite offices dispersed within MA. The questionnaire collected detailed demographic information including age, marital status, duration and cause of infertility, gravidity, parity, ethnicity, religious preference, education level and income. Data on the MA general population was downloaded from the United States Census Bureau Web site.

Evaluation and/or evidence of success:

In terms of ethnicity, among the infertile patients, 80.9%, 4.5%, 3.9%, 4.3%, and 6.4% were Caucasian, Black, Hispanic, Chinese, and Other Asian/Pacific Islander respectively (compared to 84.5%, 5.4%, 6.8%, 1.3%, and 2.6%, respectively, in the MA general population). With regard to education, none of the infertility patients had less than a high school diploma compared to 15.1% of the state population, and nearly half (49.6%) of the patients had advanced degrees compared to 12.4% of the state residents. Furthermore, over 60% of the infertility patients had an annual household level over $100,000 compared to only 17.7% in the state.

Compared to Caucasian women, Black and Hispanic women were more likely to have tubal factor infertility (5.3% vs. 24.0% and 27.3%, respectively), less than a 4-year college education (13.2% vs. 48.0% and 40.9%, respectively), and have an annual household income below $100,000 (37.3% vs. 72.0% and 68.2%, respectively). In contrast, with regard to Chinese women, 50.0% had a diagnosis of unexplained infertility,

87.5% had at least a Master's degree, and 58.3% had an annual household income over $200,000.

Conclusions:
Even in a state with comprehensive mandated insurance coverage for infertility services, the predominant individuals who access those services tend to be highly educated and wealthy. Black and Hispanic women are under-represented, and are more likely have a lower education and income level. Further studies to better understand such disparities will be the next step towards providing equal and high quality infertility treatment to all Americans.

PRECONCEPTION PREVENTION AND TREATMENT OF INFECTIOUS DISEASES AMONG MINORITY WOMEN ***Lara Carson Weinstein, MD*** Thomas Jefferson University, Department of Family and Community Medicine

Program description: A review of the literature and the author's experience regarding prevention and treatment of infectious disease among minority women in both research and community based programs. All infectious diseases which may lead to adverse maternal, perinatal, and infant outcomes will be included in the review.

Services/Interventions: clinical, educational, and behavioral services and interventions will be described

Evaluation: success/outcomes of prevention and treatment programs will be described

Conclusions: Summary of successes and challenges of preconception surveillance, research, and treatment of infectious disease in minority women with special emphasis on recommendations for working with communities to improve access to treatment and increase educational awareness of infectious diseases in the preconception period

DISPARITIES IN PERINATAL OUTCOMES USING PPOR: RESULTS FOR THE BAY AREA DATA COLLABORATIVE *Ellen J. Stein, MD, MPH, MA[1], Al Abramowitz, MS[1], Janet Brown, MSc[2], Anand Chabra, MD, MPH[3].* (1) MCAH, San Francisco Public Health Department, (2) CAPE Unit, Alameda County Public Health Department, (3) MCAH, San Mateo County Health Department.

Program Description: The nine counties surrounding San Francisco Bay have joined together as the Maternal, Child and Adolescent Health (MCAH) Bay Area Data Collaborative (BADC) to bring greater statistical power to analytic studies such as the Perinatal Periods of Risk (PPOR). The BADC enables counties without sufficient numbers for sub-analyses (e.g., by race/ethnicity) to pool data, thus enhancing efforts to study disparities in perinatal health outcomes such as preterm birth, low birth weight, fetal-infant mortality, and their risk factors.

Intervention: Analysis of 1999-2001 county and regional fetal-infant mortality (FIM) rates using the PPOR model and the variance of county rates from the regional mean using ANOVA; analysis of racial disparities in FIM rates using the PPOR model for three years of regionally pooled data. The PPOR model excludes fetal-infant deaths weighing <500 grams and fetal deaths with <24 weeks gestation. The model analyzes fetal and infant mortality by birthweight and by age at death into four categories with differentially attributable risk factors; then uses comparison groups to calculate excess/preventable fetal and infant deaths. The model classifies fetal deaths 24+ weeks and infant deaths until one year with birthweights between 500 and 1499 grams as attributable to risk factors of Prematurity and Maternal Health.

Resources also include the California Department of Health Services Birth Master File (285,960 births), the Birth Cohort File (2,210 fetal and infant deaths linked to births for SF Bay Region, 1999-2001) and the BADC county-level Title V Core Indicators, 2001.

Evaluation: Using PPOR criteria, the regional FIM rate is 7.7 per 1,000 births + fetal deaths; county rates ranged from 5.6 to 9.1 with generally little statistical variance from the mean. The disparity between Black and White FIM rates is 16.2 vs. 6.2. Prematurity/Maternal Health (<1500 grams) accounted for 42% of all deaths and 50% of Black deaths. Using a national "best outcomes" comparison group, 56% of excess deaths (n=658) could be prevented by focusing on Prematurity/Maternal Health, which may include preconceptional and interconceptional risk factors. The 2001 County Reports indicate regional rates for: low birth weight (<2500 grams) 7%, pre-term birth 9%, first trimester entry to prenatal care 86%, and adequate care 63%.

Conclusion: PPOR analysis reveals that 56% of excess deaths may be avoided by focusing on preconceptional/interconceptional risk factors that may include tobacco/alcohol/drug use, infection, stress, access to health care, injuries/abuse, family planning, nutrition, and prior pregnancy outcomes. The highly discrepant regional Black/White FIM rates differ by a factor of 2.5. Excess Black deaths may be reduced regionally by focusing on preconceptional and interconceptional health. The BADC recommends identifying county-specific periods of risk as well as geocoding the data in order to identify regional "hot spots" for fetal-infant mortality. Successful strategies for program and outcome improvement can be shared with other regions. Regional collaborations, such as the BADC, provide the power to develop evidence-based preconceptional and interconceptional health interventions.

D.3 - Where are the Men in Women's Health? Relevance to preconception care.

Men's health is often overlooked during the formulation of preconception care health policies and guidelines. Yet an increasing body of evidence demonstrates the centrality that both men and women's health play in influencing pregnancy outcomes.

Learning objectives:

1. Discuss the role(s) of lifestyle, environmental, and occupational exposures in men and women and their impact in preconception care.
2. Discuss how to translate this increasing body of information into effective policy measures.

Moderator: Melissa McDiarmid

- Healthy Dads **(Steven Schrader)**
- Improving Preconception Care for men and women exposed to reproductive hazards in the workplace **(Linda Frazier)**
- The Occupational and Environmental History: A Key Element of the Pre-Conception Visit **(Melissa A. McDiarmid)**
- Missouri Bootheel Healthy Start – "Educating a Community through Its Own Ingenuity" **(Cynthia Dean)**

HEALTHY DADS ***Steven M Schrader, Ph.D.*** National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, Cincinnati, OH

Program Description

A pregnancy is a couple event and the health of each parent determines the pregnancy outcome and the health of the baby. Because the woman carries the pregnancy the preconception health of the father is often overlooked. Life style factors such as nutrition, smoking, alcohol consumption, hot tub use, and clothing can affect his fecundity. Medical therapies can affect fecundity and pregnancy outcome. The mechanism of action of drugs can reduce sperm production, alter sperm genetics or be transported to partner. Therapeutic radiation and many cancer drugs are mutagenic and men should not father children while under such treatment. Cyclophosphamide (a potent mutagenic cancer drug) is excreted in the semen and could be absorbed transvaginaly by the partner. Recreational drugs have a negative effect on both fecundity and pregnancy outcome. Cocaine readily attaches to the sperm membrane and can be transported to the site of fertilization. Many environmental and workplace chemicals can have a profound effect on the man's fecundity and the on pregnancy outcomes. There is strong scientific evidence that exposure to some heavy metals (e.g. lead, cadmium), pesticides (e.g. ethylene dibromide, 2,4 D) and solvents (e.g. glycol ethers) will have negative effect on male fecundity. It has been reported that periconception workplace exposure to men results in adverse pregnancy outcomes. Reports show an association with the father's exposure to organic solvents, aromatic hydrocarbons, and petroleum refinery chemicals resulting in spontaneous abortions. Men's exposures to some paints and inks have possible association to specific birth defects (paints – cleft palate, damage to CNS; printing industry – cleft lip)

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Intervention Approach

Preconception health of the potential father should be stressed to men and women in preconception clinic visits as well as in health communication tools and information.

Conclusions
It must be stressed that healthy dads are important for healthy babies. His medical history, his lifestyle, and his exposure to chemicals may affect the pregnancy.

IMPROVING PRECONCEPTION CARE FOR MEN AND WOMEN EXPOSED TO REPRODUCTIVE HAZARDS IN THE WORKPLACE: PUBLIC HEALTH COMMUNICATION AND RESEARCH NEEDS. ***Linda M. Frazier, MD, MPH; Margaret A. K. Ryan, MD, MPH; Melissa McDiarmid, MD, MPH*** University of Kansas School of Medicine, Wichita, Naval Health Research Center, San Diego, University of Maryland School of Medicine, Baltimore

The content of preconception health counseling needs to include hazardous exposures in the workplace among both women and men. In toxicologic studies among male laboratory animals, exposure in the preconception period to certain chemicals causes congenital anomalies even when the female animals are not exposed. When men have substantial workplace exposure to certain pesticides, solvents or metals such as lead or mercury, epidemiologic studies have found increased rates of aneuploidy in sperm, miscarriages among wives and certain birth defects. In women, numerous research studies have identified exposures in the periconceptual period that can reduce fertility, increase miscarriages and birth defects, or lead to other adverse reproductive outcomes.

A preconception health research agenda for the Third Millenium must include methods of translating research from occupational epidemiology and toxicology into clinical practice. Priorities could be established by modifying existing surveillance systems to provide on-going estimates of the most common periconceptual exposures to hazardous agents. Optimal methods need to be developed for communicating information about reproductive hazards to the general public. A particular problem is the poor quality of reproductive hazard information on Material Safety Data Sheets. These critical workplace documents often lack information about reproductive risks to men, and are commonly written in complex language that is inaccessible to workers. An example of a sustained and effective communication program is the initiative from the National Institute for Occupational Safety and Health on preventing occupational exposures to antineoplastic and other hazardous drugs in health care settings.

The public health impact of workplace exposures that are hazardous to reproduction is substantial. More than half of the children in the United States are born to employed mothers, and nearly two-thirds of men and women in the workforce of are of child-bearing age. In many industrial sectors, hazardous occupational exposures occur at disproportionately higher rates among men and women from disadvantaged social groups. Analysis of more than 11,000 calls to 17 teratogen information services revealed that nearly one of every ten inquiries was about chemical exposures. More than three-quarters of the callers were pregnant women. Since the critical period for organogenesis is well underway before most women know they are pregnant, the calls came too late to remediate hazardous exposures that could have caused birth defects. Since calls in the preconception period were uncommon and calls from men were rare, these data underscore the need for including hazardous

workplace exposures in campaigns to raise awareness of the need for preconception health planning.

THE OCCUPATIONAL AND ENVIRONMENTAL HISTORY:
A KEY ELEMENT OF THE PRE-CONCEPTION VISIT *Melissa A. McDiarmid, MD, MPH* University of Maryland School of Medicine Occupational Health Program

In the last decade, more than half of U.S. children were born to working mothers and 65% of working men and women were of reproductive age. In 2004 more than 28 million women age 18-44 were employed full time. This implies the need for clinicians to possess an awareness about the impact of work on the health of their patients and their future offspring. Most chemicals in the workplace have not been evaluated for reproductive toxicity, and where exposure limits do exist, they were generally not designed to mitigate reproductive risk. Therefore, many toxicants with unambiguous reproductive and developmental effects are still in regular commercial or therapeutic use and thus present exposure potential to workers. Examples of these include heavy metals, (lead, cadmium), organic solvents (glycol ethers, percholoroethylene), pesticides and herbicides (ethylene dibromide) and sterilants, anesthetic gases and anti-cancer drugs used in healthcare. Surprisingly, many of these reproductive toxicants are well represented in traditional employment sectors of women, such as healthcare and cosmetology. Environmental exposures also figure prominently in evaluating a woman's health risk and that to a pregnancy. Food and water quality and pesticide and solvent usage are increasingly topics raised by women and men contemplating pregnancy. The microenvironment of a woman, such as her choices of hobbies and leisure time activities also come into play. Caregivers must be aware of their patients' potential environmental and workplace exposures and weigh any risk of exposure in the context of the time-dependent window of reproductive susceptibility. This will allow informed decision-making about the need for changes in behavior, diet, hobbies or the need for added protections on the job or alternative duty assignment. Examples of such environmental and occupational history elements will be presented together with counseling strategies for the clinician.

"EDUCATING A COMMUNITY THROUGH ITS OWN INGENUITY"
Cynthia G. Dean B.S., Teresa Campbell, R.N., Vanessa Frazier, James Washington
Missouri Bootheel Regional Consortium Inc.

Program Description:
The Missouri Bootheel Healthy Start (MBHS) project is the leading organization providing perinatal health referral and education services in the southeast corner of Missouri, commonly referred to as the Bootheel due to its shape. The target area encompasses about 25,000 square miles in the five rural counties of Dunklin, Mississippi, New Madrid, Pemiscot and Scott. Entering its eighth year of service provision, MBHS is a catalyst in bridging gaps between the African American community and access to

health care in this rural, sparsely populated area. MBHS is well recognized in the local, regional, and social service area. MBHS received its original funding in 1997 as a replication Healthy Start cooperative agreement. The project received funding again from HRSA. At that time, MBHS earned only one of four perinatal depression grants for the MBHS Women's Wellness Initiative.

Intervention Approach and Providers:

The social problems of the Missouri Bootheel are pervasive. Lack of education, few employment opportunities, and low self-esteem have led to poverty, substance abuse, and promiscuity. Poor lifestyle choices and unfortunate family situations have led to rampant STD's, unwanted pregnancies and unhealthy babies. MBHS focuses on educating the community on the contributing factors of infant mortality and using information collected to design integrated interventions; thus increasing the number of women connected to a system of prenatal care and changing community knowledge and attitudes regarding maternal and child health. The Consortium and Local Council structured in each of the five counties, work with the project to help ensure that objectives are met. MBHS recognizes the power of collaboration; therefore, to implement many of the interventions, local providers assist in offering education and screenings to gather vital data to analyze health service gaps.

Conclusions:

Currently there are few programs targeting women and children in the project region that include males. MBHS has mobilized efforts for seven years to include men in creative communication strategies, including media to raise awareness of the importance of men participating in prenatal care classes and care coordination programs that assist in accessing prenatal and post-partum care. MBHS is recognized nationally and statewide for the development of consumer friendly, culturally competent maternal and child health education resource materials. These include infant health classes for women and fathers, videos, newsletters, fact sheets and curriculums.

The Fatherhood First program implemented provider friendly policies to address the importance of fathers in their children's lives, values, and communication. The program offer classes to men that deal with a variety of issues. A curriculum helps fathers more effectively fulfill their roles as parents, partners, and workers. Experience has taught project staff that mothers' perspectives should be incorporated into program planning for fathers and that mothers are given a voice in the development of service delivery models. The quality of the mother-father relationship is one factor that strongly affects a father's willingness and ability to be involved with his children.

MBHS continues to exist due to wide racial and socio-economic disparities in infant mortality, morbidity and low birth weight between African Americans and the Caucasian populations.

D.4 – P romising Clinical Practice Strategies.

The latest clinical guidelines for preconception care from ACOG will be highlighted. The presenters will share practice strategies that have been implemented in a variety of settings.

Learning Objectives:

1. Understand the implication for practice based on the new ACOG guidelines

2. Understand the group care concept for the continuum of preconception care through interconception.

Moderator: Abby Rosenthal

- An Innovative Model for Preconception/Interconception Counseling during **(Bernstein, Peter)**
- First Page: Screening for Birth Defects and Genetic Disorders **(Kloza, Edward)**
- Current clinical practice and guidelines **(Michele Curtis)**
- Evidence-Based Interventions to Achieve Smoking Cessation in Pregnant Women **(Susan Albrecht)**
- Improving Perinatal Outcomes by Providing Preconception Care for Women with a History of Depression **(Jennifer Wilen)**

AN INNOVATIVE MODEL FOR PRECONCEPTION/INTERCONCEPTION COUNSELING DURING PRENATAL CARE. ***Peter S. Bernstein, MD, MPH, Sharon S. Rising, CNM, Siobhan Dolan, MD, MPH, Setul Pardanani, MD, Irwin R, Merkatz, MD.*** Albert Einstein College of Medicine/Montefiore Medical Center, Department of Obstetrics & Gynecology and Women's Health.

Introduction: Pregnant women are an ideal target population for counseling about preconception care. By definition, they are fertile and sexually active. Unfortunately, pregnancy is often viewed as an isolated period in the reproductive life of a woman. As a result little or no time is spent addressing interconception/preconception care during traditional prenatal visits. In order to meet this challenge we describe our adoption of the group model of prenatal care promoted by the Centering Pregnancy and Parenting Association (CPPA), Inc. This model. which has been implemented at more than 50 sites around the country, views pregnancy as one phase in a continuum in the reproductive life of a woman and affords healthcare providers the resources to address all the phases, including preconception care.

Methods: In February 2002, we began to offer to our pregnant patients at the Comprehensive Family Care Center at Montefiore Medical Center the group model of prenatal care developed by CPPA. This model replaces traditional prenatal care revisits with group appointments for 10-12 women and their partners that each last 2 hours. All the elements of traditional care are offered in the group setting, but additional time is available for providers to facilitate discussions among the participants on topics that are set forth in a curriculum provided by CPPA and that are relevant to pregnant couples and new parents. Women begin their group visits between 12-16 weeks of gestation and continue with a total of 10 sessions until the end of their pregnancies. Many of the topics covered during the group sessions are especially relevant to interconception/preconception care, including discussions of nutrition, substance use/abuse, contraception, sexuality, safe sex, and family planning.

Results: Since February 2002, 14 groups for prenatal patients have been conducted according to the CPPA model at our office. The model has since been made available at three other offices operated by Montefiore Medical Center. Groups are conducted by midwives, attending physicians, and residents in obstetrics and gynecology under the supervision of attending physicians.

Patient and provider satisfaction with the program is high because of the additional time offered for prenatal care. Providers, in particular, report satisfaction with being able to adequately educate their patients about all elements of prenatal care, including preconception care.

Conclusion: The CenteringPregnancy® group model of care is a superior to the traditional model of individual visits for teaching pregnant women about the importance of interconception/preconception care. The model offers the opportunity to address issues that impact women's health broadly and is being extended to include first year of life groups (known as CenteringParenting®), as well the prenatal groups that have been successfully implemented at Montefiore Medical Center.

First* PAGE: A STRATEGY FOR SCREENING FOR BIRTH DEFECTS AND GENETIC DISORDERS APPLICABLE TO PRECONCEPTION CARE** ***Edward M. Kloza, MS, Sara Ellingwood, MS, Judith Johnson, PhD Foundation for Blood Research, Scarborough ME and the University of Southern Maine, Portland ME

Program description including target population Prenatal care providers (PCPs) are recognized as essential to the identification of women at risk of delivering children with birth defects or genetic conditions. Efforts to engage PCPs in genetic risk identification however, have had mixed success. Since 1996 we have used a strategy suitable for preconception care to identify and manage women at risk while educating PCPs about genetic issues relevant to their practice.

Services offered or intervention approach and providers The original version – dubbed *ProgramME* – was funded by the MCHB used a 15 element self-administered Genetic History Questionnaire (GHQ) indexed to a 15 section Office Guide, and was introduced in 1996 by project staff to 212 Maine PCPs. Eighty-five percent of survey respondents used the GHQ with all new patients and gave the approach a rating of 4.4 out of 5. Seventy-three percent had their patients complete the GHQ themselves. The overall number of calls for genetic information or referrals for genetic services was unchanged following implementation of *ProgramME*. However, the percentage of calls initiated by family history increased from 13.2% to 27.4% ($p<0.01$), and calls associated with a maternal condition rose from 9.9% to 19.5% ($p=0.03$). Modified materials were introduced to an additional 7 diverse venues in the United States with similar success. In 2002, the March of Dimes funded a revision and update of *ProgramME*. At that time, 48% of Maine PCPs continued to use the 1996 *ProgramME* materials compared to 85% in 1996. Renamed *First* PAGE, the new materials were introduced to all Maine PCPs and mailed to all New Hampshire PCPs as well.

Evaluation and/or evidence of success A survey of recipients of these new materials revealed that 83% of respondents intended to use the approach with all or most new patients, similar to the response in 1996. Seventy-one percent said *First* PAGE made them more confident discussing genetic issues with patients, and 69% said it simplified risk assessment. It helped 60% learn more about genetics, and assisted 74% in addressing risk early.

Conclusions While this resource was designed and used primarily during pregnancy, both the self-administered questionnaire and the provider resource material are easily transferable to the preconception/interconception setting. Maternal exposures to teratogens for example are best addressed prior to pregnancy when medication/dosage can be altered or alternatives to pregnancy considered. Communities may also modify this resource to include areas of specific interest such as maternal alcohol or recreational drug exposure. A tool such as *First* PAGE that can be used by prenatal care providers both for their pregnant and pre-pregnant patients as well as by family planning agencies may play an important role in improving health of mothers and infants. However, any resource such as *First* PAGE must keep current with clinical findings as well as available community resources for it to remain attractive to providers and patients alike.

CURRENT CLINCIAL PRACTICE AND GUIDELINES (Michele Curtis)

Clinical guidelines are a valuable tool in the practice of medicine but are not always adopted or fully implemented. Incomplete adoption of practice guidelines has significant implications for health policy decisions which are influenced by professional guidelines, as well as clinical practice patterns and professional and organizational attitudes. This paper reviews what past studies have found with regards to preconception care guidelines and actual clinical practices. Two recent surveys by the March of Dimes and ACOG were done to assess the current state of clinical practice(s) in preconception care and these are discussed. Knowing where, how, and why clinical guidelines have been successfully adopted and translated into clinical practice, as well as which guidelines have failed, is vitally important in revising and promoting preconception care recommendations. Ultimately, the success of these recommendations rests on their ability to influence and shape women's health policy.

EVIDENCE-BASED INTERVENTIONS TO ACHIEVE SMOKING CESSATION IN PRECONCEPTIONAL WOMEN

Susan A. Albrecht, PhD, RN, FAAN, University of Pittsburgh, School of Nursing

Program Description

Approximately 20% to 35% of pregnant women smoke during pregnancy. To have the greatest impact, smoking cessation interventions should start during preconception care. Smoking cessation interventions initiated prior to conception or in the 1st trimester produce the greatest benefit. Successful treatment of tobacco dependence can achieve a 20% decrease in low birth weight babies, a 17% decrease in preterm births and an average increase in birthweight of 28g.

Services Offered

Consistently, healthcare providers and systems have not delivered appropriate evidence-based smoking cessation interventions. Providers should consider using the 5 A's approach for those women who wish to stop smoking and the 5 R's approach for women who are not interested in quitting. These approaches are brief, requiring 3 or less minutes of clinician time at each visit.

Evaluation
To help healthcare providers implement the 5 A's approach in their clinic or office setting, there are six steps: 1) develop an administrative commitment; 2) involve staff early; 3) assign one coordinator to oversee implementation; 4) provide training on 5 A's and 5 R's; 5) adapt procedures to your setting and 6) monitor and evaluative approaches to see if they are working.

Conclusions
Smoking cessation interventions need to begin during preconception care to have the maximum influence on infant mortality and morbidity. The smoking status of women needs to be assessed at every healthcare encounter. By effectively training the healthcare team to intervene with women of childbearing age, positive healthcare outcomes will increase and costs will be reduced.

IMPROVING PERINATAL OUTCOMES BY PROVIDING PRECONCEPTIONAL CARE FOR WOMEN WITH A HISTORY OF DEPRESSION

Jennifer M. Wilen, MPH and Ann E. Conway, RN, MS, MPA
Wisconsin Association for Perinatal Care, Preconception and Prenatal Care Committee

Program Description and Target Population: Responding to the need for basic information about depression and pregnancy in 1999, the WAPC Preconception & Prenatal Care Committee developed a brief, low literacy information sheet entitled "Women with Depression." This sheet is designed for women whose pregnancy outcomes may be adversely affected by depression and is available free of charge.

Services Offered or Intervention Approach and Providers: "Women with Depression" helps women understand the importance of talking with their health care provider about depression, so that the necessary precautions can be taken to reduce the risks associated with this serious condition. It answers four basic questions: *How does depression affect pregnancy? How does pregnancy affect depression? How could medications for depression affect the pregnancy? What can you do before pregnancy?* Health care providers who have contact with women during the preconception period, including, but not limited to, primary care physicians, nurse practitioners, mental health experts, social workers, certified nurse midwives and pediatricians, can utilize this information sheet with their patients.

Evaluation and/or Evidence of Success: The availability of "Women with Depression" has been publicized widely through print and electronic means, including the WAPC Web site. In March 2004, the Bronx Health Link, Inc., a group of

approximately 35 inpatient and outpatient providers in New York, requested to print "Women with Depression" in a special edition of their newsletter entitled "*Chronic Illness during Pregnancy: Planning for a Healthy Outcome*." This is one measure of the success of electronic distribution.

Conclusions: Preexisting depression in women is the strongest predictor of depression occurring during pregnancy or postpartum, something that 10-15% of women and up to 28% of women living in poverty experience. By treating depression as a chronic condition and by actively managing depression prior to conception, a woman's chances of being prepared for a depressive episode during the perinatal period greatly increases.

Plenary Session: How to pay for it? Financing Preconception Care

Moderator: Charlie Mahan,
Professor, University of South Florida
Sara Rosenbaum, J.D., Hirsh Professor and Chair, Department of Health Policy, George Washington University
Mary Stranger – Director of Benefits, Synovus Financial Corporation

Closing Plenary Session: Where do we go from here? Implications for Practice

("Nightline" style panel)
Moderator: Kay Johnson

- **Al Brann, Jr.,** MD
  Professor of Pediatrics
  Emory University, School of Medicine
  Director - World Health Organization Collaborating Center in Reproductive Health (in Atlanta)
- **Magda Peck,** ScD
  Senior Advisor, CityMatCH
  Professor, University of Nebraska Medical Center
- **Michele Curtis, MD**
  American College of Obstetricians and Gynecologists
- **Margaret Comerford Freda,** EdD, RN, CHES, FAAN
  Professor, Obstetrics & Gynecology and Women's Health
  Albert Einstein College of Medicine, Montefiore Medical Center
  Editor, MCN The American Journal of Maternal Child Nursing
- **Ann Weathersby,** CNM, MSN
  Kaiser Permanente
- **Charlie Mahan,** MD
  Professor, University of South Florida
- **Maxine D. Hayes,** MD, MPH
  State Health Officer
  WA State Department of Health
- **Carol Weisman**, Ph.D
  Center of Excellence for Research on Pregnancy Outcomes, Penn State